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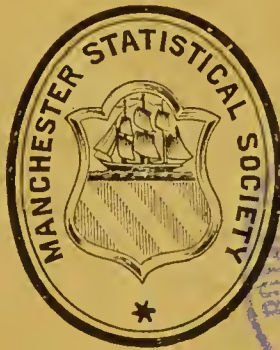
Manchester Statistical Society.

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THE CASE FOR A MINISTRY OF  
HEALTH.

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By FRED SCOTT, F.C.A.



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Read April 22nd, 1903.

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MANCHESTER STATISTICAL SOCIETY.

## The Case for a Ministry of Health.

BY FRED SCOTT, F.C.A.

A CLAIM has recently been formulated for the organisation of a Ministry of Commerce, and the representatives of labour have coincidentally asserted a claim to a Ministry of Industry. The proceedings in the House of Commons, on a motion for the appointment of a Minister of Commerce, gave little hope that more would be achieved than an attempt to adapt to present-day requirements the obsolete constitution and methods of the Board of Trade. No doubt the undertaking of the Government, to "make inquiry into the position of the Board of Trade and Local Government Board," would be accepted by the representatives of labour as well as commerce as a satisfactory result of the action taken. The motion in the House of Commons was made on the same day that a resolution was passed by the the Association of Chambers of Commerce, assembled in Annual Meeting, in the following terms: "That, in view of the growing needs of the very varied industrial and commercial interests of this country, this Association recommends that His Majesty's Government be requested to take into consideration the desirability of organising a suitable department, to be presided over by a Minister of Commerce." It is the remarks of the proposer of that resolution which I propose to take for my text in this paper. He said: "The importance of British commerce was recognised by Members of Parliament, the members of the Government, and the members of any possible Government; *it was the*

*foundation not only of the prosperity of the people, but of the greatness of the empire itself."* That is essentially the commercial view. Contrast with it that of the poet—the familiar lines of Goldsmith—

"Ill fares the land to hastening ills a prey,"  
Where wealth accumulates, but men decay."

Contrast with it also the view of the sage—Ruskin. "There is no wealth but life. Life, including all its powers of love, of joy, and of admiration. That country is the richest which nourishes the greatest number of noble and happy human beings; that man is richest who, having perfected the functions of his own life to the utmost, has also the widest helpful influence, both personal and by means of his possessions over the lives of others." Hear also the voice of the Church on this matter. In his powerful address, as President of the Manchester and Salford Sanitary Association at the Jubilee Meeting last year, the Bishop of Manchester said: "No less, but even greater, is the offence of such a negligent civil administration against the nation. What is the real wealth of a nation? It does not consist in its hoards of money, in the volume of its trade, or even in the extent of its dominion. It is to be found in the quality of its citizens. If these are strong in body, alert in mind, and firm in character; if they are men of resource, of courage, of self-control; if they be just, temperate, patriotic, and self-denying, the nation which bred them is rich; for you can set it no task which it is unable to accomplish, and you can impose upon it no burden of effort and endurance which it is unable to bear. I call the Boers a rich people, even though they be only poor farmers, small in number, and with little knowledge of culture. They are rich in manly and physical qualities, and so they have won the respect of their enemies, and are destined to bear no insignificant part in the evolution of Africa's future." The late Lord Beaconsfield said: "The health of the people is really the foundation upon which all their happiness and all their power as a nation depend. It is quite possible for a kingdom to be inhabited by an able and active population; you may have skilful manufacturers,

and you may have a productive agriculture; the arts may flourish, architecture may cover your land with temples and palaces; you may even have material power to defend and support all these acquisitions; you may have arms of precision, fleets of fish torpedoes; but if the population of that country is stationary, or yearly diminishes in stature and strength, that country is ultimately doomed. The health of the people is therefore, in my opinion, the first duty of a statesman."

Let me at once disclaim any intention of depreciating the proposal for a Ministry of Commerce, which, it may be presumed, would embrace industry. My contention is, however, that whether a Ministry of Commerce and Industry be created or not, it is of vital importance and urgency that a Ministry of Health, under that name, should be organised. And why? The answer is supplied by our bills of mortality, and by various indications to which attention has been repeatedly called, that the physique and stamina of our race is rapidly declining under existing conditions. I fancy I hear the ostrich-like optimist say: "Nothing of the kind. Look at our national games; what country devotes so much attention to manly exercises such as cricket, football, lacrosse, etc., or to athletics, swimming, cycling, etc.?" These are all good, and help to counteract deterioration; but, all the same, there are influences at work which the student of public health sees plainly are steadily sapping the virility of our people—that grand heritage which has made the British the greatest colonising and conquering race the world has known. Coming from me, this might be reasonably regarded as mere verbiage, without any justification in fact. Let us see what men whose utterances command attention have to say. James Anthony Froude, in "*Oceana, or England and her Colonies*," wrote: "It is simply impossible that the English men and women of the future generations can equal or approach the famous race that has overspread the globe, if they are to be bred in towns like Birmingham and Glasgow now are; and to rear their families under the conditions which now prevail in those places. Morally and physically they must and will decline." Mr. Froude looks



to the Colonies as our only hope for the maintenance of our place amongst the nations. "England would pour out amongst them year after year those poor children of hers, now choking in fetid alleys, and, relieved of the strain, breathe again fresh air into her own smoke-encrusted lungs. . . . By and by they would return the sap which they were gathering into the heart." A highly apropos comment on this utterance is contained in a lecture delivered for the Edinburgh Health Society by the eminent sanitarian, Dr. James B. Russell, late Medical Officer of Health for Glasgow. He said: "I appeal to the democracy. Do not abandon our cities to this black future. How can England ever be 'Queen among the nations, from without invulnerable, and at peace and at health within,' if the old heart of the nation beats slower from year to year in an island which is gradually being petrified into cities, in which children die or grow up into 'dead sea apes'? By all means incorporate the Colonies, but not as healthy limbs to a decaying body. Never will it be truer that the voice of the people is the voice of God than when that voice says 'Let there be light' in those 'fetid alleys,' where Mr. Froude says, and says truly, 'with no sign of a green field, with no knowledge of flowers or forest, the blue heavens themselves dirtied with soot—amid objects all mean and hideous, with no entertainment but the music hall, no pleasure but in the drink shop—hundreds of thousands of English children are now growing up into men and women. Only say the word, and the light will come.'"

The late Registrar-General and eminent Vital Statistician, Dr. Farr, in the supplement to the 35th Annual Report of his Department, wrote as follows: "The hygienic problem is how to free the English people from hereditary consumption, cancer, syphilis, gout, hereditary insanity, hereditary vagrancy, hereditary criminality, and to develop in the mass the athletic, intellectual, æsthetic, moral, and religious qualities, which have already distinguished some of the breed. There is a Divine Image in the future to which the nation must aspire. The first step towards it is to improve the health of the present generation ;

and improvement, if as persistently pursued as it is in the cultivation of inferior species, will be felt by their children and their children's children. A slight development for the better in each generation implies progress in a geometrical progression, which yields results in an indefinite time that if suddenly manifested would appear miraculous."

Very much to the point was an utterance of the late Professor Fawcett, as follows: "It will therefore be well distinctly to appreciate what is implied in bringing into operation causes which will produce greater mortality; some definite idea may be formed on the subject by considering the results involved in the present high death-rate prevailing amongst the children of the poor. Assume that there are 1,000 of these children, that 500 of them die before the age of five, whereas if they were as well cared for as the children of more wealthy parents, only 200 of them would die before this age. The death, therefore, of 300 is to be traced to defects in our social and economic condition. These children are literally slaughtered, and in a manner, moreover, which indicates prolonged suffering. But this is only a part, and perhaps the smaller part, of the mischief which is done; the causes which produce this excessive mortality do not alone affect the children who die; all those who survive are also brought under the same blighting influence. Consequently, to all the struggle for existence becomes more severe, the more weakly succumb; even the stronger, who survive in passing through the trying ordeal, often contract the germs of future disease, their constitutions being in too many cases undermined. Physical deterioration ensues, and a whole people may thus become gradually stunted and enfeebled."\*

But the prime importance of the health question becomes more obvious when we consider its bearing on the mental and moral qualities of the people. In an address, delivered at a Sanitary Congress in Glasgow in 1883, the President, Professor G. M. Humphry, M.D., F.R.S., said: "When we bear in mind the close connection between the mental, the moral, and the

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\* "Pauperism: Its Causes and Remedies."

physical, and reflect that the mental and the moral qualities are to a great extent the outcome of the physical, and vary with it, and that therefore a deterioration or an improvement of it are necessarily associated with a deterioration or an improvement of them; then the value of sanitary work assumes vastly greater proportions, and we learn more fully to appreciate the feeling which, even in long past ages, esteemed the laws that relate to the sanitary conditions of a people as supreme. So close indeed, further, is the interdependence of the physical, the mental, and the moral in man, that an improvement or a deterioration in any one is certain to be attended by an improvement or a deterioration in the other two. If, from indifferent sanitary arrangements, or other cause, the physical be allowed to sink, the mental and moral force which, as just stated, are dependent upon it, must soon be weakened. So also good sound education, and that mental training which gives strength to thought and judgment, and which can only be carried out in the healthful body, will re-act beneficially upon the body as well as upon the moral tone, and will add to that uprightness and honour and that vigorous bearing which make the man. Still more true is it that moral delinquency ravages both body and mind, throws its dark shadow over coming generations, and infallibly leads to the degradation of the species. The moral delinquencies damage the body, and the so damaged body is the more prone to the moral delinquencies. The action and re-action is direct and swift. One way, therefore, to limit and arrest moral disease, and to increase the healthy moral tone of a community, is to limit and arrest bodily disease and to labour in every possible manner to improve the sanitary condition of the body."

The late Dr. Alfred Carpenter, in an address to working people at Glasgow, said: "One of the inducements to enter a whisky shop so early in the morning and so frequently in Glasgow is the foul air in which the people live; if you want to stem the torrent of intemperance, you must ventilate your sleeping rooms." Earl Compton, in an article in one of the reviews, said: "It is the usual custom to attribute poverty and disease to



intemperance, particularly by those who will not move a finger or stir a step to help in any way temperance legislative reform. I am convinced that many of those who take to drink have been induced to take the first step by the houses in which they live. I know, of course, that drink causes many to drift into the classes of the poor, and the very poor, but intemperance is not only the cause but also the consequence of overcrowding."

I think sufficient testimony has now been adduced to show that the conservation of the public health is by far the highest function of Government, and that it should no longer be allowed to remain a subordinate function of sundry departments, but that all branches of administration relating to public health should be embraced in one separate and distinct department, to be presided over by a Minister of State. The need for this has long been recognised by profound students of the question. Perhaps the first suggestion of the kind is contained in a quaint tract, dated 1689, discovered by me amongst the treasures of our Free Reference Library, and entitled, "A Proposal for the better securing of Health, humbly offered to the consideration of the Honourable Houses of Parliament," which, as a curiosity, I deem worthy of forming part of the Appendix of this paper (A). But the necessity for a Ministry of Health was not appreciated even by sanitarians until the early years of last century, when Jeremy Bentham, the great jurist, published his Constitutional Code, embracing provision for a Ministry exclusively concerned with Public Health. (See Appendix B.)

Other writers of distinction from time to time have emphasised the need for a Ministry of Health. Thus, Henry W. Acland, M.D., F.R.S., Regius Professor of Medicine at Oxford, in an address delivered in the Royal College of Physicians in 1871, said: "The conviction is gaining every day more strength, that however true it may be that the mind has influence over the body, it is as true that national health cannot be fully secured without strict attention to the material conditions in which the people are placed. This consideration of late years occupied the attention of our statesmen. Regulations affecting trades, workshops,

mines, shipping, dwelling-houses have, within twenty-five years, reached such dimensions as to have a literature of their own. We have not, therefore, so much to discuss the necessity of this attention as the principles on which, in immensely widening circumstances, it should be directed into practical results. These principles may rest on the following considerations:

“That no individual should for his own profit poison his neighbour.

“That the State must, in certain things essential for health, assist the masses in what they cannot assist themselves.

“That the cost of permanent sanitary improvements should be borne in some reasonable proportion by posterity.

“That compulsion of the ignorant in sanitary matters, when their ignorance injures society, is justifiable.

“That compulsion will, we hope, be unnecessary when scientific education is adequately extended.

“That good conduct, based either on knowledge or on obedience, is as essential to health as is any physical arrangement which is not an actual necessary of life.

“That in the present state of the world mischief-bringing ignorance in sanitary questions is especially inexcusable in the law-making classes.

“That local government by the people, well informed by a central authority (Ministry of Health), is essential to the physical education of the nation.”

The last paragraph would seem to imply that Professor Acland contemplated a department for consultative purposes only. That, however, already existed in the Local Government Board. But a later paragraph clearly indicates that he had in mind a department armed with executive powers. It is as follows: “There is scarce a department of the State which is not connected with the public health. Wherever there is an army or marine, school or factory, workshop or prison; wherever a town, a village, or a hospital, there the State has to decide in what particulars the employer or the worker under him, the landlord or the tenant,

the owner or the occupier, the vendor or the purchaser, the manufacturer or the consumer, shall lose his free agency, and be forced to subject his will to that of the majority in the State."

Any list of writers on this subject would be incomplete without the name of the father of sanitary reform in this country, the late Sir Edwin Chadwick, C.B. At an International Congress of Hygiene, held in Paris, under the patronage of the Government of France, in 1878, he read an exhaustive paper on "The Requisite Attributions of a Minister of Health," in which he stated the following:—

*"Conclusions as to the Reciprocal Action needed between Central and Local Sanitary Authorities.*

"To sum up so far. From the indications I have given (of what would need greater length and voluminous proof for the full development of the principles of public sanitary organisation) I submit, as conclusions for an efficient administrative organisation of the public health, that—

"(a) A distinct central authority, under a Minister of Health as President of a permanent Board, which shall have executive attributions, is of absolute necessity.

"(b) That the efficient action of the central authority is dependent on the completeness and efficiency of special local organisations comprising well-trained and well-appointed local officers of health, endowed with independent, yet responsible, executive attributions, acting under the supervisory authority of local representative bodies.

"(c) That the efficiency of the action of the local officers and of the local authorities is dependent on constitution and efficient action of the central executive as an instructional and aiding authority, between which and the local authority there must be mutual dependence and harmonious reciprocal action."

*“General Definitions of the Primary Functions needed from  
a Central Authority.*

“Firstly, as an agency for collecting and communicating to each local authority for its guidance the facts and the conclusions deduced from the experience of all other places from which information might be obtained.

“Secondly, as an agency for the removal of those local evils in the removal of which the public at large have an interest, but for which the people of the locality are helpless or incompetent.

“Thirdly, as an authority of appeal between conflicting local authorities or interests.

“Fourthly, as an authority for settling the proper amount and the correct distribution of local charges, and for the protection of minorities and absentees against wasteful outlays and undue charges.”

Then follow examples of the need of a central authority to prevent local oppression, obstruction to administration from local factions, the prevention of jobbing in local appointments, the protection of local officers in the conscientious discharge of their duty.

The late Sir Benjamin Ward Richardson, M.D., F.R.S., in an address on that subject, delivered at a Sanitary Congress in 1878, said: “Is there any requirement for such a Ministry will be the first question that comes forward. We have rapidly progressed, and, as we have proceeded so far without such a Ministry, and we found during the short time that we had a President and an acting Board of Health, no great satisfaction in that experiment, why should we move at all into that which is new and problematical?”

“The answer to this is that we must move because we cannot remain as we are. We have piled up such a number of sanitary valuables, we do not know how or where to lay our hands on them when we want them. We have a library without a librarian or a catalogue; I had almost said without a shelter. Until we get a house with an orderly department and an official direction we can have no system in our work, while day by day, with an



increasing public intelligence, the work becomes harder, and a systematised plan of it more absolutely necessary."

"At this time there are half a dozen Ministers of Health and half a dozen boards, with a number of intelligent men, some of the highest intelligence, acting practically as clerks, doing sanitary work which clerks could well do, and chafing under the infliction of labours which have no satisfactory end. The President of the Local Government Board is one of these Ministers, the Secretary of State for the Home Department is another, the Registrar-General is a third, the Chief Commissioner of Works is a fourth, the Lord President of the Privy Council is a fifth, and the President of the Board of Trade is a sixth. There is not one of these important State functionaries who has not something to consider bearing on the health of those whose interests he superintends; while some of them have more sanitary details to consider than any other. I name those officials, specially leaving out of sight, but not out of mind, the heads of the Army and Navy Departments, the Postmaster-General, and the semi-governmental President of the Metropolitan Board of Works."

"But with all this multiplication of officers connected with particular parts of the sanitary service, we have no one reliable Minister of Health: not one to whom application can be made for immediate and distinct information; not one from whom information is issued that is complete in its bearings; not one who is ready at any moment to furnish the Government of the day with data by which it could come to a decision in the event of any great crisis affecting the health of the people; not one to whom the people would pay an instant and a willing deference."

"It is a Minister and Ministry able to carry out these duties that is now required, and to the creation of which our attention should be devoted."

Arthur Ransome, M.D., F.R.S. (then Deputy Chairman of the Manchester and Salford Sanitary Association), in an address on "State Medicine," at the Annual Meeting of the British Medical Association, at Manchester, in 1877, said:—

"Let us suppose, then, that at this somewhat uncertain epoch

in our national history, there will be a perfect sanitary organisation, with a head as well as a body and limbs, and not the low type of molluscous organisation that exists at the present time.

“For this end there should be a Minister of Public Health, chosen not from political reasons alone, but like the Viceroy of India, because he is well acquainted with the details of his duty, a man able to rule—and ready to answer for his Actions to Parliament.

“He would preside over the department of Public Health, including medicine and medical police, and he should have the aid of a staff of assistants specially skilled in the several departments of the subject—hygiene, vital statistics, pathology, toxicology, sanitary engineering, and sanitary physics.”

And at the Annual Meeting of the same Association at Ryde, in 1881, Dr. Ransome said:—

“The body of our organisation would require a head; its several ganglia would have to be presided over by a brain. I cannot but think that, for this purpose, as well as for the thousand other purposes concerned with the important subject of the national health, we need a Minister of Public Health with a staff of officers, of whom some would be detailed solely for the superintendence and organisation of this branch of the work.

“It appears from recent proceedings in Parliament, that there is to be something approaching to a Ministry of Agriculture and Commerce; and surely the safety and physical well-being of the people, and their protection from preventable disease, are more worthy the attention of a Minister of State than the diseases of cattle and sheep, or even than the multitudinous operations of the money-market.

“I do not know whether or not we are likely to obtain anything analogous to this arrangement in reference to public health; probably not, if we may judge from the ordinary position of health questions in Parliamentary proceedings, where there is usually a reversal of the now famous doctrine, that the first duty of a statesman is the health of the people; and ‘*salus populi*,’ instead of being the *suprema lex*, is usually taken to be the lowest.”

But the weightiest contribution of all to the advocacy of a Ministry of Health is contained in the Report of the Royal Sanitary Commission, 1871, vol. ii., page 351. In the Appendix (C) I give Section III., devoted to the consideration, "How complete sanitary organisation may be best obtained." The spirit in which the Commission reported is forcibly shown in the preliminary

"MEMORANDUM ON MEDICAL OFFICERS OF PUBLIC HEALTH.

"Section 1. The duties of the medical officers of public health must necessarily be considered in connection with several complex questions of central and of local administration."

"The Commission has unanimously come to the conclusion that every question affecting public health should be brought into relation with one central office, presided over by a Minister. Every health officer would thus stand directly or indirectly in official relation to such a Minister."

"Section 2. It has been further decided that every district, urban, suburban, or rural, should, in respect of its public health, be as closely connected with the said department of health as is every part of the country with the Home Office through the police and the magistrates, and as are the destitute with the Poor Law Board through the guardians of the district in which they are resident."

"In short, that every person shall henceforward be entitled to such reasonable public protection in respect of his health as he is in respect of his liberty and his property. For instance, he shall be no more liable to have the water poisoned by the neglect of his neighbour than to be robbed with impunity."

"And he is to be under this protection as far as it is reasonably attainable everywhere and at all times."

"The *first principle*, therefore, of sanitary administration is that no member of the community shall wilfully or for profit damage another man's supply of the "three absolute essentials of life—food, water, and air; and therefore that it is the duty of the State to secure as far as possible that these essentials shall

be supplied in sufficient quantity, and the greatest attainable purity, in all circumstances in which these objects cannot be attained by individual care and resources. In this point of view it may appear a question whether the State should allow that any man, even by prescription, shall be held to have acquired the right to pollute for his own advantage another man's food, water, or air, or in any manner poison him. At anyrate, care should be taken that no one shall acquire such a right in future."

I need not quote further. If the recommendations of that Commission had been carried into effect, we would not have to complain to-day that the physique and stamina of Englishmen are deteriorating, whilst those of some of our European neighbours are, in respect of those essentials of national prosperity, advancing. This I shall endeavour to prove later on.

Following upon the Report of the Royal Sanitary Commission of 1871, a praiseworthy effort was made by Mr. Goschen to give legislative effect to its recommendations, but, unfortunately, he embodied in his Bill proposals relating to local taxation which were unfavourably received, and their withdrawal, although there was no necessary connection, involved the sacrifice of the proposal for a Ministry of Health. Why the latter proposal was never renewed during the past 32 years is a mystery. The present time seems opportune for disinterring the Report of the Royal Sanitary Commission, and it is to be hoped that some statesman of sufficient weight will take the matter up. Taking into consideration the power acquired by the democracy since 1871, there can be little doubt that Mr. Goschen's Bill, minus the fiscal provisions, if now presented to the House, would, by support of educated public opinion, pass into law.

It is now time to consider the grounds for the claim of sanitarians that the organisation of the public health service of the country shall be perfected.



The following tables show the mortality during the past half century in England and Wales from diseases wholly or partially preventable.

TABLE I.

EXTRACT FROM THE REGISTRAR-GENERAL'S LAST ANNUAL REPORT.

Period.	Annual Mortality per Million Persons living from the principal Zymotic Diseases.										Total Deaths per 1,000,000 Living.	Population.
	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea and Dysentery.	Cholera.		
Cols.: 1	2	3	4	5	6	7	8	9	10	11		
1850	215	422	503		675	875			894	55	3639	27,523,694
1851	448	547	541		921	1000			1161	90	4703	27,393,370
1852	478	246	1001		648	901			1037	67	4433	27,448,257
1853	86	398	820		1084	1064			1077	359	4888	27,542,583
1854	277	563	1389		999	1125			1328	4239	9970	27,653,704
1855	408	345	1025		957	966			860	58	4619	27,821,730
1856	204	569	700		805	1045			929	58	4308	28,011,034
1857	59	509	607		959	833			1251	81	4299	28,188,280
1858	90	884	1561		1010	716			828	49	4248	28,389,770
1859	425	488	1277	284	639	675			1289	71	5148	28,590,224
1860	323	752	726	174	744	531			535	18	3803	28,778,411
1861	77	377	846	239	1260	656			973	66	4488	28,977,133
1862	128	816	1221	255	758	1284			643	37	5142	29,243,670
1863	687	562	1706	275	749	988			858	55	5880	29,470,969
1864	185	942	1097	207	819	1278			1018	53	5599	29,680,437
1865	214	431	727	144	980	1074			1242	65	4877	29,925,177
1866	457	730	622	152	973	884			1083	1840	6741	30,147,755
1867	436	370	470	145	738	708			992	78	3937	30,409,132
1868	190	625	929	158	745	786			1309	103	4845	30,689,977
1869	87	458	1839	107	1187	225	337	194	1100	69	5603	30,978,278
1870	302	450	1875	104	607	147	303	177	1184	74	5227	31,256,535
1871	2422	437	582	105	701	113	267	133	1214	68	6047	31,555,694
1872	537	505	276	80	979	52	242	97	1078	54	3900	31,874,183
1873	34	637	191	95	777	82	269	96	1171	48	3400	32,177,550
1874	17	490	773	122	545	91	256	98	934	36	3362	32,501,517
1875	13	404	1056	167	920	37	235	78	944	31	3885	32,888,758
1876	207	485	651	109	771	45	217	57	1010	38	3590	33,199,904
1877	710	664	439	88	505	44	251	54	673	24	3452	33,575,941
1878	388	411	495	155	1227	41	283	54	967	34	4055	33,943,773
1879	121	667	717	155	791	19	229	48	510	14	3266	34,302,557
1880	125	402	820	144	930	20	186	35	989	35	3686	34,622,980
1881	619	663	553	172	516	24	254	35	799	25	3660	34,984,476
1882	111	605	519	222	1212	14	252	25	555	20	3535	35,206,617
1883	35	626	514	244	410	14	247	26	680	21	2817	35,449,721
1884	313	575	362	241	799	8	234	20	988	41	3581	35,724,281
1885	357	731	181	227	624	7	150	20	684	19	3000	36,015,601
1886	6	519	172	212	714	3	154	18	994	34	2816	36,313,582
1887	2	716	356	235	723	5	151	11	937	26	8162	36,599,143
1888	2	590	295	319	728	2	169	9	527	13	2664	36,881,271
1889	..	558	190	391	132	4	130	10	650	15	2830	37,178,829
1890	1	773	206	331	768	2	146	9	658	20	2914	37,484,764
1891	2	428	142	340	680	3	132	10	577	17	2331	37,796,390
1892	10	709	273	461	587	3	102	5	595	20	2768	38,103,519
1893	48	384	370	761	541	1	161	5	797	31	3102	38,434,620
1894	20	759	223	624	433	1	147	3	402	7	2669	38,777,687
1895	13	614	189	535	346	1	143	2	825	17	2695	39,113,465
1896	2	826	207	599	655	1	130	4	723	21	3008	39,464,582
1897	4	428	175	509	412	..	131	2	929	26	2616	39,825,357
1898	..	682	129	392	478	1	131	..	929	29	2817	40,190,797
1899	1	469	88	429	378	..	177	..	929	33	2504	40,555,623

TABLE II.

## ENGLAND AND WALES.

ANNUAL Deaths from Septic Diseases to a million living, 1851-1899. Extracted from the Registrar-General's Annual Reports.

Year.	Enteric, Typhus, and ill-defined Fevers.	Diarrhoea.	Phthisis.	Bronchitis.	Erysipelas	Puerperal Fever.	Other Septic Diseases.	Abscess and Tumour (ill-defined).	Total Deaths from all Causes.
1851	997	941	2734	962	106	56	Not classified separately before 1862.	...	22000
1852	1022	1117	2781	938	114	53		...	22300
1853	1008	874	2984	1217	99	43		...	22900
1854	1015	1181	2791	1078	105	52		...	23500
1855	875	754	2822	1444	122	58		...	22600
1856	847	793	2601	1131	113	57		...	20500
1857	988	1189	2627	1329	83	44		...	21800
1858	918	787	2591	1509	103	55		...	23100
1859	806	1001	2547	1332	98	63		...	22400
1860	652	544	2564	1648	84	50		...	21200
Mean	912.8	918.1	2704.2	1258.8	102.7	53.1		...	
1861	767	1002	2581	1558	77	44	...	Not classified separately before 1881.	21600
1862	919	597	2502	1617	75	46	4		21400
1863	874	775	2476	1574	93	56	8		23000
1864	960	832	2540	1894	100	71	10		23700
1865	1089	1164	2541	1754	92	63	11		23200
1866	986	853	2602	1968	78	56	13		23400
1867	778	960	2539	1902	69	49	11		21700
1868	895	1405	2336	1550	88	54	15		21800
1869	822	935	2352	2022	83	53	16		22300
1870	768	1161	2410	2097	94	66	18		22900
Mean	885.8	968.4	2487.9	1793.6	84.9	55.8	11.7		
1871	678	1094	2342	2112	97	64	16	...	22600
1872	600	995	2271	1868	76	60	16	...	21300
1873	578	962	2194	2216	87	74	17	...	21000
1874	578	923	2081	2259	142	131	28	...	22200
1875	541	1028	2202	2651	126	104	27	...	22700
1876	438	917	2119	2240	95	71	22	...	20900
1877	362	619	2079	2208	84	58	24	...	20500
1878	413	1003	2111	2436	75	57	23	...	21600
1879	310	452	2021	2825	72	58	25	...	20700
1880	340	1171	1869	2247	78	64	25	...	20500
Mean	483.8	916.4	2128.9	2306.0	93.2	74.1	22.3	...	

TABLE II.—*Continued.*

Year.	Enteric, Typhus, and ill defined Fevers.	Diarrhoea.	Phthisis.	Bronchitis.	Erysipelas.	Puerperal Fevers.	Other Septic Diseases.	Abscess and Tumour (ill-defined.	Total Deaths from all Causes.
1881	277	558	1825	2145	89	88	28	38	18900
1882	304	653	1850	2197	92	97	24	38	19600
1883	297	598	1880	2208	81	98	22	37	19600
1884	276	978	1827	1978	79	91	24	40	19700
1885	211	492	1770	2240	73	89	20	36	19200
1886	215	899	1739	2232	55	76	16	36	19500
1887	211	727	1615	2117	67	88	13	31	19100
1888	193	455	1568	2041	58	85	17	24	18100
1889	196	648	1573	1957	43	65	13	25	18200
1890	197	606	1682	2333	48	68	14	25	19500
Mean	237·7	661·4	1732·9	2144·8	68·5	84·5	19·1	33·0	
1891	184	469	1599	2593	43	68	13	23	20200
1892	148	505	1468	2267	50	80	14	24	19000
1893	243	954	1468	1906	65	102	16	23	19200
1894	170	350	1385	1642	45	72	11	19	16600
1895	184	874	1398	1972	36	61	12	18	18700
1896	173	546	1307	1539	36	67	11	16	17100
1897	162	840	1341	1508	33	59	12	17	17400
1898	187	923	1317	1485	31	54	9	15	17600
1899	204	937	1336	1613	39	60	12	14	18300
Mean	183·8	710·8	1402·1	1836·1	42·0	69·2	12·2	18·7	

This mortality is only part of the cost of the public apathy which tolerates the present State indifference to the perfecting of our sanitary administration. Authoritative writers, such as Farr, Chadwick, Simon, Ransome, and others, state that for every death there are at least five cases of illness which have not proved fatal, but which tend towards deterioration in succeeding generations. Those authorities have assessed the money value of the lives lost through preventable causes, the value of each life—taken at the difference between earning power and cost of support—being variously assessed at an average of from

£150 to £200. On the basis of the smaller amount the absolutely preventable deaths in England and Wales in one year would amount to several millions of pounds. For a fuller statement of this argument see Appendix (D).

The optimist will, as a rule, sneer at this line of argument, describing it as strained and far-fetched, but it is based on fact all the same. It is incontrovertible that the mortality shown in Tables I. and II. is largely the result of conditions unfavourable to health which need not exist. These conditions mainly obtain in large towns, especially those in manufacturing districts. But, over and above the insanitary conditions which are the immediate cause of so many preventable deaths, there are other influences adverse to health. Vice and drunkenness play no small part; as already shown on high authority these are largely the effect rather than the cause of insanitary conditions, which may be removed by an intelligent and conscientious sanitary authority.

The truism which I want to emphasise is that the *conditions of life in large towns in this country at present, tend to deterioration of the physique and stamina of the race*. It is only the constant influx of healthy lives from country districts which has hitherto kept the average death-rate down to a percentage which has not alarmed the public. But percentages in vital statistics are most misleading. If, for sake of illustration, we examine the statistics of mortality in Manchester, we find that in Rusholme, Crumpsall, and other so-called "residential suburbs," we may have death-rates of no more than 16 or 18 per 1,000. With an average death-rate of 24 or 25 per 1,000, it is obvious that persons in residential districts of another kind are dying at rates which, if presented as averages, would shock the public mind. But even these figures, based upon actual deaths in the several registration districts, do not represent the



true death-rates so far as the districts occupied by the poor are concerned. When the poor become sick, they have in most cases to be removed to workhouse or other hospitals, and the deaths in those institutions, or in districts to which the patients have been removed, must, of course, be added to the actual deaths in the registration districts of the city to arrive at a true conception of the conditions inimical to health in such districts. In this way Dr. Thresh, in the inquiry conducted by him in 1888-9 for the Manchester and Salford Sanitary Association, into the causes of the excessive mortality in the notorious No. 1 District, Ancoats, showed that the "true death-rate in the blocks, streets, courts, etc., of the district varied from 20·8 to 91·6 per 1,000," and made up as follows:—

Rates of from 20 to 30 per 1,000 in 4 blocks or streets.

„	30 to 40	„	...	0	„
„	40 to 50	„	...	13	„
„	50 to 60	„	..	7	„
„	60 to 70	„	...	6	„
„	70 to 80	„	...	2	„
„	80 to 90	„	...	2	„
„	90 to 100	„	...	1	„

But, after all, the death-rate is not an absolute guide in establishing my point as to the effects of town life on physique and stamina. Of even greater cogency are the statistics showing the condition of the living. As an indication of this let us take some figures from the Annual Report of the Inspector-General of Recruiting for the Army for 1902, just published.

TABLE III.

Number of ordinary recruits who presented themselves for medical examination during the past five years, the number rejected and the percentages of rejections.

	1898.	1899.	1900.	1901.	1902.
Number Medically Inspected.	66,501	68,059	84,402	76,750	87,609
Number Rejected—					
For Various Ailments ...	13,969	13,501	13,788	14,931	19,674
For want of Physical Development .....	9,318	8,892	9,317	7,355	8,547
Total Rejected ...	23,287	22,393	23,105	22,286	28,221
Percentage of Rejections—					
For Various Ailments ...	21·0	19·8	16·3	19·46	22·46
For Want of Physical Development .....	14·0	13·1	11·1	9·58	9·76
Total .....	35·0	32·9	27·4	29·04	32·22

To this table is appended the following note: "It will be seen that the percentage of recruits rejected for various ailments is considerably higher than for the last two years, and when examining these totals it must be borne in mind that they do not represent anything like the total number of the rejections of candidates for enlistment in the army. A large number of men are rejected by the recruiters themselves for the causes above mentioned, and in consequence are never medically inspected, and do not appear in any returns."

In a note later on in his report, the Inspector-General says: "The one subject which causes anxiety in the future as regards recruiting is the gradual deterioration of the physique of the working classes, from whom the bulk of the recruits must always be drawn. When it is remembered that recruiters are instructed not to submit for medical examination candidates for enlistment unless they are reasonably expected to be passed as fit, one cannot but be struck by the percentage considered by the medical officers as unfit for the service. In the reports from

all the manufacturing districts stress is invariably laid upon the number of men medically rejected for bad teeth, flat feet, and inferior physique."

TABLE IV.

The following table, furnished by the Director-General of the Army Medical Department, shows the occupations and education of the recruits medically inspected as per Table III. :

OCCUPATIONS (Proportion per 1000 Inspected).	1898.	1899.	1900.	1901.	1902.
Labourers, Servants, Husbandmen, &c...	637	649	616	640	669
Manufacturing Artisans (as Clothworkers, Weavers, Lacemakers, &c.) .....	139	141	142	122	117
Mechanics employed in occupations favourable to physical development (as Smiths, Carpenters, Masons, &c.) ...	92	103	133	132	117
Shopmen and Clerks .....	72	68	70	63	59
Professional Occupations, Students, &c...	9	9	10	11	9
Boys under 17 years of age .....	31	30	29	32	29
	1000	1000	1000	1000	1000
EDUCATION (proportion per 1000 found fit).					
Well Educated .....	49	71	83	98	55
Able to Read and Write .....	922	899	889	879	925
Able to Read only.....	11	13	15	13	9
Unable to Read .....	18	17	13	10	11
	1000	1000	1000	1000	1000

From this table it would seem that our agricultural population continues to supply the bulk of the recruits for the army.

Other observers have also called attention to the physical deterioration of our people, as shown by army statistics. In an article, which appeared in the *Manchester Guardian* on May 2nd, 1902, it was stated that "soon after the war began some official figures were published in the *Guardian* as to the number of recruits for the army that had enlisted in Manchester. It was then shown that a large percentage of applicants for military service were physically unfit for it, and were rejected by the authorities, although the standards of measurement had been lowered. . . . The returns of recruiting in the Manchester district in the past year are not less interesting. Within the

twelve months 11,896 men went through the primary examination at the Manchester dépôt, near the Cathedral. Of these, 3,076 only were accepted for service, or about one-fourth of the whole number of applicants. The remainder were for the most part so ill-developed and poor in physique that it was impossible to take them in, although the dearth of recruits makes the authorities anxious to accept as many as possible. There was no improvement last year over the year 1900. In 1900 the number of applicants examined was 12,235, and of these 4,030 were fit to serve. . . . The standard of physical efficiency is now lower than it ever has been before. A minimum chest measurement at full expansion of  $33\frac{1}{2}$  inches and a minimum height of 5 feet 3 inches are considered sufficient. It is stated that the standard has been lowered from year to year in consequence of the steadily decreasing physical robustness of city populations.

"Many of the would-be soldiers who find their way to the Manchester dépôt are youths of 18 or 19 years. They mainly, though not wholly, come from the poorer parts of the city, and are usually average members of their class as far as physique goes. The figures that denote the measurement of those rejected sufficiently show how poor they are in bodily condition. . . . 'The contrast,' according to the recruiting officers, 'between the young man who comes to be a private and the young man who is joining the army as an officer is almost appalling. Young fellows of 18 come measuring 28 or 29 inches round the chest instead of 33 or 34, and proportionately undersized.' The comparison between the occasional agricultural labourer, who goes in for the army, and the man from Ancoats or Hulme, is scarcely less marked. The muscles of one are well developed by hard work in the fields; the other is too often a mere stunted weakling."

The Rev. W. G. Edward Rees, who has thoroughly studied this subject, has shown in recent writings and lectures that, while the physique of continental peoples, as shown by army statistics, is improving, that of ours is deteriorating. He says: "The official figures relative to the physique of Dutch recruits show a



steady and continuous improvement between 1860—1900. The Dutch recruit is now nearly two inches taller than he was in 1860. The official statistics for the French army are not so emphatic as these, but they, too, point to a manifest improvement. Thus, between 1872 and 1899, the average height of the French soldiery had risen by  $\frac{1}{8}$ th of an inch, while the proportion of recruits exempted by reason of their being below the maximum standard of height and health has fallen continuously from  $9\frac{1}{4}$  per cent in 1831 to about 5 per cent as at present. The statistics for the Italian and Austrian armies tell much the same tale. Unfortunately, the German administration is secretive in this as in other matters; but those who are best qualified to form an opinion maintain that the improvement in the German physique has been definite and progressive. . . . Some of the facts which investigation reveals are humiliating to our national self-love. Of this kind are the facts that are disclosed by a comparison of the latest available German with English statistics of approximately the same date. In 1889 the English recruit averaged 5 ft.  $5\frac{1}{8}$  in. in height, which was almost precisely the average of the German recruit. In weight the German recruit had a distinct advantage. He weighed 128·6 lbs., as against the English recruits 124·5 lbs. In chest measurement there was almost an exact parity. The English recruit had a chest measurement of 33·6, as against the German 33·4. But it must be observed that comparisons in this particular reference are vitiated by a difference in the mode of measurement. The anthropometric statistics of our recruits do not yield any very emphatic positive conclusions. Between 1845 and 1873 there seems to have been an almost continuous decline in the standard of physique. In 1875, Surgeon-Major Leith Adams testified, before a Committee of the United Service Institution, that youths of 17 in 1845 were physically superior to those of 18 in 1873. From 1873 to 1889 the lamentable decline in the physique of the recruit was fully maintained, for whereas in the former year 412 out of every 1,000 were under 5 ft. 7 in. in height, in the latter year 481 failed to reach this standard. In the decade,

1889 to 1899, the decline seems to have been arrested, but no clear improvement has taken its place. Without indulging in a carnival of figures, let me briefly say that the conclusion to be reached by a study of recruiting statistics is this, that while the standard of physical efficiency on the Continent generally is a rising one, our own is tending ever downward. Nor can recruiting statistics be dismissed as fallacious guides. On the Continent they apply to practically all the males, and are consequently a sure index. In England, while they do not apply to the whole male population, it will, I think, be conceded that they fairly reflect the average physique of our youths. Tommy Atkins, taken in the lump, is at least as much superior in height and weight to the average slum-bred youths as he is inferior to the average athletic youth of our universities."

During the past week I have had interviews with Dr. Wilhelmi, Chief of the Imperial Statistical Department at Berlin, and Dr. Hirtzberg, Chief of the City of Berlin Statistical Office, and each attribute the improved physique of German soldiers to the system of compulsory military service, under which habits of cleanliness are obligatory and physical training is conducted on scientific methods. The outcome is not merely the improvement in the army. When the conscripts return to civil life they retain the healthy habits formed under military discipline and teach them to their children.

This significant fact is now recognised in England as shown by such a communication as that of Lord Charles Beresford to the *Manchester Guardian* a few days ago, and especially by the formation of a National Service League, whose two leading objects are—

- (a) To bring home to the people through individual training and sacrifice a sense of the duties and responsibilities of citizenship;
- (b) To counteract the physical and moral degeneracy attendant upon industrial life in crowded cities.

In a pamphlet, entitled "A Vindication of the (United Kingdom) Alliance," Mr. James Whyte, the secretary, says: "The

following figures, which I received through Mr. Duff, the British Consul at Gothenburg, from the Statistical Department at Stockholm, show the proportion of conscripts rejected on account of unfitness for military service from 1831 to 1890, and they also indicate a very remarkable improvement in comparatively recent years in the health and vigour of the Swedish people:—

	Per Cent.
1831 to 1840 .....	35·7
1841 „ 1850 .....	36·4
1851 „ 1860 ..	35·7
1861 „ 1870 .....	27·8
1871 „ 1880 .....	23·7
1881 „ 1890 .....	20·4 "

The same remarks apply to the Swedish army as to that of Germany as regards the effect of military training on physique.

Mr. Arnold White, in his remarkable pamphlet, entitled "For Efficiency," quotes a Boer writer, who wrote that the Boers "despised us for our physical inefficiency. We know, he said, that your men, being the dregs of your people, are naturally feeble, and that they are also saturated with the most horrible sexual diseases, as all your Government returns plainly show, and that they cannot endure the hardships of war.

"We know that the entire British race is rapidly decaying; your birth rate is rapidly falling, your children are born weak, diseased, and deformed, and that the major part of your population consists of females, cripples, epileptics, consumptives, cancerous people, invalids, and lunatics of all kinds, whom you carefully nourish and preserve."

Dr. Sir T. Lauder Brunton, in a letter to the *Manchester Guardian*, which appeared on the 2nd of this month, says: "This nation is awakening to the necessity of an increase in our national defence to secure us against invasion, and the necessity to physically educate our children and youth in order to counteract the deterioration in our population, which has attained such an extent as to constitute a national danger."

In an interesting "Open Debate" on "National Physical Training, now appearing in the *Manchester Guardian*—there have already been several important contributions to the discussion—Mr. J. B. Atkins said:—

"What signs are there that physical training is needed now more than before? Is it not true that man is, on the whole, of greater strength and stature than five hundred years ago, and is it not true that life tends to become longer, so that to have lived seventy years now is by no means necessarily a cause of sorrow? On the whole, all this is true; the average man to-day could not put on the average-sized suit of armour, and he lives rather longer (because medical science and drains are better) than the man who used to wear the armour. But nevertheless there is a degenerative tendency, and if it is recent in origin the duty is more plainly our own to arrest it. 'Paying considerable attention to the laws of health,' says Mr. Herbert Spence, 'we seem to be weaker than our grandfathers, who in many respects defied the laws of health.' He came to that conclusion after long holding out against assertions about degeneracy as being mere pessimism. Again, let me take the evidence of that careful observer and good soldier, Sir Frederick Maurice, given in a recent number of the *Contemporary Review*. He visits the Herbert Hospital regularly to sanction the discharge of unfit soldiers, and he finds that out of every five men who offer to enlist only two remain 'effective soldiers.' This statement is startling. It means that five men offer themselves for enlistment for every two who reach maturity in military life. At first Sir Frederick Maurice supposed that the doctors had been careless in passing the men as recruits, but on investigation he discovered that the men were all well enough when they enlisted. Mr. H. F. Trippel, who is intensely interested in this subject, and who, I hope, will give you his views, quoted the case of Birmingham the other day in a letter to the newspapers. It is estimated there that 30 to 50 per cent of young men eighteen years old cannot pass the ordinary test for the Volunteer forces.



Of thirty-one recruits the other day only eleven were accepted, although the doctors were prepared to be indulgent. Incidentally it must be said that here is an indirect testimony to the capabilities of the voluntary system. The voluntary system as such is not failing; it still 'works,' although *more than half* the material it recruits turns out to be useless. Clearly if we took care to make the material sound the voluntary system would never be in danger. Such figures as these make one see that we are paying the penalty for losing our yeoman class. The 'pride of breed' was theirs. Many yeoman families have at last disappeared whose forbears had lived in the same spot for more generations than most British peers can accurately count in their lineage. These were truly the 'old families' of England. 'Good beef and good beer make good blood,' the farmer's wife says in 'Rhoda Fleming,' but they only make it in a settled state of life and in country air. What apparatus shall we substitute for that which produced the 'good blood' of Merry England? Of course, it is profoundly true that the most important of all physical education is that which a mother gives to her child. A boy of fifteen cannot be made strong by any gymnastics or exercises yet invented if, when a baby, he was fed (there are such cases!) on cold cabbage and kippers, with an occasional radish or a nip of gin to hearten him up. Private soldiers have bad teeth, it is said, no doubt; and they will continue to have them if babies continue to do without milk. But then milk, abundant and long-continued, is not cheap; the poor cannot afford it; and no one has a right to complain of the indifferent physical calibre of our soldiers who tries habitually to trip up every agency which works for the improvement of wages. It is difficult to see how the State can invade the Home, or how good advice can be put into practice without the wherewithal to do it."

Nothing is more remarkable in military history than the three years' struggle of not more than 100,000 Boer farmers against the might of England. It took nearly 250,000 of our trained soldiers of all arms to conquer them, and this, it may not

unreasonably be said, was largely due to their better physique and superior powers of endurance.

The recruiting officer, interviewed on behalf of the *Manchester Guardian*, already quoted, expressed the opinion that "there is no more serious question before the nation at the present time. The only real remedy, in my opinion, is to make physical training compulsory in all elementary schools."

It is, however, not necessary to rely upon army statistics to prove the deteriorating effect of life in towns upon those subject to insanitary conditions. Once more I prefer to quote unquestionable authority rather than presume to lay down any dictum of my own. Dr. Russell, already referred to, than whom in my opinion no more competent authority on hygiene has ever lived, in one of his voluminous contributions to the literature of public health, wrote: "The general sanitary improvement of our towns tells first and chiefly upon the children. So, also, with everything affecting the morals of the adult population. Vice and drunkenness strike at the child through the physical deterioration of the home, and the destruction of that self-denying and scrupulously conscientious discharge of parental responsibility, upon which the weak and helpless child is so utterly dependent. The city quickens every element, the bad as well as the good, in human nature. . . . The child has to grow the machine which, as an adult, it will use. In the first year of life the child adds more to its bulk than in any subsequent year. It trebles its weight, and adds  $7\frac{3}{4}$  in., or 41 per cent, to its height. In the second year it gains nearly 4 in. more, and so by gradually diminishing increments attains the full stature of the perfect man. It follows from these facts that every element of health which influences the adult tells much more upon the child either for good or ill. The adult is in a position of stability, and has mainly to strive to keep what he has got to resist deterioration. The child has not merely to resist, but to store up. It must progress, or it will die. The child is physically, even more than morally, the father of the man. It may change morally, but it cannot get rid of rickety bones or

impaired organs, or a tainted constitution. If it gets insufficient or improper food to eat, foul air to breathe, impure water to drink; if it is cramped for space, and cradled in dirt, it cannot help itself. It must succumb, or grow up through sickly and unhappy adolescence into weak and stunted manhood. This helplessness is one of the pathetic features of childhood which should touch the heart of society on its behalf." Again Dr. Russell says: "If we look more closely at a town, as compared with a rural population, we discover various characteristic features which it is of interest and importance for us to note. There is always in towns a much greater proportion of adults of both sexes—persons at the prime of life. The marriageable females are greatly in excess of the males of the same age. As a natural consequence, early marriages are much more frequent in the towns than in the rural districts, the birth rate is higher, and the proportion of children under five years of age is in excess. But between five and fifteen years of age the proportion is reversed. Though the town is more productive, it is less conservative of child life than the rural population. . . . A much larger proportion of the English than the Scotch people live in large towns, and the large towns of England are much more deadly to child life than those of Scotland. Within a year of birth they destroy, on an average, 185 of every 1,000 born. If we take individual towns, the sacrifice is still more dreadful. For example, in Liverpool it is 219 out of every 1,000 born, and in Leicester it rises as high as 245—that is to say, one out of every four of the unhappy babies of Leicester is buried within one year of its birth.

"You know that in war, when you read that so many were killed, you always read further that so many were wounded. You do not need to be told that of the wounded many more will die, and that the majority of those who ultimately survive will be more or less maimed and crippled, and a large proportion will be invalided and found unfit for further service. So it is with these troops of children. If 137 (average for Scotland), 153 (the number for Glasgow), or 185, or 245 in four several troops

of 1,000 each, have died within one year of their entrance upon the campaign of life, then a proportion keeping pace with the rising fatality will be wounded. Of these many more will die as the campaign progresses, and the survivors will be invalided and unfit for further service. Still, further, if only 90 have died in another troop (representing the country districts), you need not be told that the physique of those who survive must, on the whole, be more vigorous and serviceable than the physique of the survivors of those other thousands. Thus, without appealing to the comparative statistics of stature, rate of growth, weight, chest girth, and all those facts of anthropometry or man measurement, that it cannot but be that the physique of town born and bred men and women is inferior to that of men and women born and bred in the country. This being admitted, if the proportion of all the children of a nation who are town born is increasing from year to year, then the physique of the whole country must be deteriorating in quality. The rural districts furnish the only resistance to our progress down the inclined plane, and just as the towns absorb the inhabitants of the rural districts, this resistance will become less, and the national descent more rapid."

I now proceed to show the rate at which this process of absorption of the rural population by the towns is progressing. In a paper, read before the Royal Statistical Society by Mr. T. A. Welton, in November, 1902, on "The Distribution of Population in England and Wales and its Progress in the Period of Ninety Years, from 1801 to 1891," I take the following summary of a table, adding the percentages myself:—

TABLE V.

	1801.	1811.	1821.	1831.	1841.	1851.	1861.	1871.
Towns .....	3,977,908	4,709,991	5,788,294	7,142,640	8,593,780	10,291,201	12,184,839	14,405,600
Populous Places ..	756,890	880,150	1,050,147	1,218,970	1,439,649	1,619,270	1,924,295	2,314,344
Rural Districts.	4,103,072	4,434,617	5,077,292	5,446,606	5,783,091	5,918,869	5,845,271	5,856,266
Belt of Districts round London	54,666	63,018	73,519	83,033	92,612	93,269	111,919	136,044
Militia and Sundries..	..	76,480	10,984	5,548	5,016	..	..	..
Total Population of England & Wales.	8,892,536	10,164,256	12,000,236	13,896,797	15,914,148	17,927,609	20,066,224	22,712,266
Percentage of Towns to total Population ..	44·7	46·3	48·2	51·4	54·0	57·4	60·7	63·4



From this table the percentage of town population in 1801 appears to be 44·7, but in another table Mr. Welton gives figures which do not quite harmonise with the above, and in his comments thereon he says: "On reviewing the above summary it will be seen:

- "(a) That urban population, including most of the small towns, amounted to about 35 per cent of total population.
- "(b) That rural districts, exclusive of various surrounding towns, mostly of a rural character, included 91 per cent of the total area.
- "(c) That the areas classed as populous were less than 1 per cent of the whole.
- "(d) That whilst density of population in the sparsely peopled districts averaged 0·074 per acre, or 47 per square mile, in the better peopled rural districts, the density averaged 0·161 per acre, or 103 per square mile."

Mr. Welton shows that in 1801 the density of population in 283 towns of 2,000 inhabitants and upwards was 1·8 per acre, and in 1891 the density for the same towns was 8·7 per cent; whilst the density of 223 towns of 1,000 inhabitants and upwards was in 1801, 0·6; and in 1891, 2·2 per cent.

In the discussion on the paper, Mr. Noel A. Humphreys, a distinguished authority on vital statistics, said: "Taking the official areas, the census report of 1891 showed that only 9 per cent of the area of England was occupied by the whole urban population, and that the remaining 91 per cent was rural. This 91 per cent of the area which was rural contained, however, only 28 per cent of the population of England and Wales. The census of 1891 showed, moreover, that this rural area gave on the average four acres to every man, woman, or child enumerated, or 20 acres to every family of five persons. With this fact before us, it could scarcely be said as yet that this country is over-populated."

Whilst recognising the truth of Mr. Humphreys' deduction

as regards the country as a whole, I must point the moral of his statistics as applied to my argument. The late Dr. Farr is credited with the statement, "Give me the density of population, and I will tell you the death-rate." This dictum, however, is obviously subject to limitations such as "all other conditions being alike," inasmuch as a population in, say, block dwellings, where the density is very great, but which has the advantage of perfect sanitary arrangements, a higher standard of health may be attained than in a cottage population of comparatively low density, where sanitary laws are neglected. For my purpose, however, it may be taken as a sound principle for application to the whole country that increase of density of population is adverse to health.

I have quoted Mr. Welton's figures showing the increase of urban and rural population up to 1871 only, having been informed by the Somerset House authorities that absolutely trustworthy figures are available since 1881 only. The following are the official figures for the last three censuses:—

TABLE VI.

	Urban Population.	Per Cent.	Rural Population.	Per Cent.
1881	17,636,646	67·9	8,337,793	32·1
1891	20,895,504	72·0	8,107,021	28·0
1901	25,057,868	77·0	7,469,975	23·0

This table shows with startling vividness the rapid decline of the rural population, and, consequently, the deterioration of race in respect of physique and stamina, pointed out by Dr. Russell, 17 years ago.

As the rural population is being absorbed by the towns at this alarming rate, and the present conditions of town life are shown to be so detrimental to health, it is obviously of the highest importance that prompt measures be taken to make towns approximately as healthy as rural districts. It will be too late if it be left to the local authorities to move at the

present rate of progress. It is essential, therefore, that a strong central department be constituted capable of enforcing all existing laws.

In a paper, read two years ago before the local Society of Sanitary Inspectors, I said: "It must be admitted that under the present system an excellent organisation for the prevention of disease has been developed, but what is the use of the machinery if the hands of those who could and would work it are more or less tied. It cannot be denied that the extension of local government has been on the whole highly beneficial, but there are certain matters for which it is essential that the administration should be centralised, or at least that the Government Departments should be not merely nominal boards of control, but bodies whose duty it is to see that the law is properly administered by local authorities. In the matter of health the Local Government Board could not be said to exert any active control.

"Of course it has to formally sanction bye-laws, authorise loans, etc., but how rarely is its power employed to require recalcitrant local authorities to enforce the law? Indeed it has come to this, that a local authority has only to act in defiance of the Board, and it may practically do as it likes. How often does it happen that a municipality has already spent money on a particular work before even asking the permission of the Board to borrow it as required by law, and how often do we see reports of local authorities under the nominal control of the Local Government Board openly treating its communications with contempt.

\* \* \* \* \*

"It seems, therefore, the height of folly, the entire abnegation of true statesmanship, to allow the interests of the public health to remain any longer subordinate to those selfish interests which are now too generally represented in the bodies charged with the administration of the law.

"The very fact of recognition by the State of the pre-eminent importance of the interests of the public health, by

advancing the controlling department to the rank of a Ministry, would in itself exert a powerful educational influence. But it would do much more. The change would involve many improvements in the organisation of the health service. Thus, uniformity as far as local conditions would permit, of the bye-laws of all local authorities, the direct responsibility of Medical Officers of Health and Sanitary Inspectors to the central authority (this implying security of tenure of office to such officials, and consequently their independence in seeing to the effective administration of the law); all matters affecting public health should be dealt with by the Health Ministry instead of being divided between the Local Government Board, the Home Office, and several other departments as at present, and a well-organised Health Ministry would supply the standards of sanitary necessities for the army and navy, the colonies, and other dependencies, thus rendering valuable help to those departments. A Health Ministry would have a special care to the perfecting of health legislation, and perhaps one of the first things to be done in this direction would be the alteration of all the 'mays' in the Public Health Acts into 'shalls.' At present it is left entirely to local authorities to seek powers as they desire them to meet local requirements, involving heavy charges on the rates in promoting Bills or Provisional Orders which might at a minimum cost be obtained for them by a Ministry of Health."

The result of perfunctory administration is well illustrated by the case of Scotland, where investigations made to discover the causes of the neglect to apply the sanitary law in certain localities led the Board of Supervision to make the following general observations:—

"The reason for this apathy in a large number of rural districts is the idea that the sanitary laws are not obligatory, and that consequently no one need concern one's self with the removal of nuisances if not willing to do so. It is clear that such persons should be compelled by legal measures to abandon this false notion. Another important cause is that the local poor relief guardians are generally not competent to exercise



control over the public health. Ofttimes incapable of appreciating the fatal effects of insanitary conditions in the propagation and aggravation of contagious diseases, they oppose all expenses which would be the means of ending a state of things dangerous to health. . . .

"The influence of public hygiene in lowering the death rate is seen in a comparison of the rural districts with the eight principal towns of Scotland. During the ten years 1869-78 the mortality diminished by 12 per cent in the towns in which there are energetic and intelligent sanitary authorities, and increased by 4 per cent in the rural districts; giving conclusive proof of the injurious consequences of inattention to sanitary laws."\*

These remarks apply equally to England and Wales. In those small towns and country districts where the Medical Officer of Health is in general practice and receives only a small sum as remuneration for his public health work, it is as much as his appointment is worth to do his duty fearlessly. I call to mind one case in which a conscientious Medical Officer in a health resort was dismissed because in a paper read before a local society he called attention to the necessity for improved sanitation in the lodging-houses of the town. The action of the Town Council was vetoed by the Local Government Board, who paid part of the Medical Officer's salary. The Council replied by declining further contribution from the Local Government Board, gave effect to their dismissal of the offending doctor, and then appointed another Medical Officer at half the salary previously paid. In another case that came to my knowledge a Medical Officer was told that he was only appointed because the law required it, and that he would best please his employers by doing nothing, and not to bother them with reports. If a general report on the sanitary condition of the whole of England and Wales prepared by a Central Health Department were published showing the variety of conditions

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\* Palmberg and Newsholme's "Public Health and its Application."

under which the people live—their condition as to housing, water supply, air pollution, adulteration of food, milk supply, provision for removal of refuse, hospital accommodation, and other matters bearing upon the public health—such a picture would be presented as would give a wholesome shock to the public mind and create an instant demand for the constitution of a Ministry of Health, which would bring order out of chaos, effect uniformity of practice, and spur on laggard authorities with results which would very soon justify this exercise of power. In the admirable work which I have found a mine of wealth to the student of Public Health (Palmberg and Newsholme's "Public Health and Its Application"), Dr. Newsholme, of Brighton, says: "Above all the sanitary laws attack individual liberty, as in order to be efficacious they must necessarily encroach upon the inviolability of the home. In order to ensure that they are observed it is necessary to visit the houses and yards, to disinfect rooms, etc. Now, nowhere has the idea of individual liberty and of inviolability of the home taken such strong root as amongst the English. They possess the law of *Habeas Corpus*, and the dictum, *My house is my castle*, shows clearly the opinion every Englishman has of his rights. This does not prevent him from submitting readily to the laws which deprive him of a good part of his liberty. The reason is that for an Englishman *Liberty* is not an empty word, but signifies, on the contrary, everything that can safeguard the individual and free him from the inconveniences and perils inherent to life in communities. The Englishman had already police to protect him from violence, and as soon as he had recognised the possibility of preventing a large number of diseases, he logically demanded that the State should take the necessary steps to protect him against disease. As the only means of attaining this end was the execution of sanitary reforms, not only does he conform to these himself, but watches with the greatest care to ensure that others equally submit. . . . Although England, more than any other country, professes a sincere love for the principle of self-government, she none the less has under-

stood for a long time that every branch of the administration needs a central direction which holds in its hands all the threads of the different local portions. This central authority compares and groups the results obtained by the local authorities, gives them the necessary instructions, and to some extent controls their action." The qualification conveyed by the last few words of Dr. Newsholme's remarks is all important. As already stated, this so-called control is quite visionary. A department that would really control is what is needed, and by carrying out the recommendations of the Sanitary Commission of 1871 Parliament would render the sanitary administration of this country all that could be desired, and a model for all other countries.

In the Appendix (E) I give particulars as to how the Public Health administration is controlled in some other countries. In none is the machinery so perfect as in England, but it has the advantage in most cases of being controlled by central authority, with the result that abuses are more effectively dealt with.

In Appendix (F) copies of Memorials from the Manchester and Salford Sanitary Association on the creation of a Ministry of Health, and the need of national physical training, are given.

I have referred to the mortality in Tables I. and II. as "wholly or partially preventable."

We know that as regards the principal zymotic diseases (Table I.)—

*Smallpox* is preventable by vaccination, suitable hospital provision and administration; also by proper education of medical students. This applies to all infectious diseases.

*Measles and Whooping Cough* are very infectious in the earlier stages. Probably the most useful measures are early closure of invaded departments of schools, and isolation at home, especially in the earlier stage.

*Diphtheria* is prevented by active administration, the tracing of slight diphtheritic throats, and bacteriological examinations, early use of antitoxin, careful antisepsis of the discharged matters.

*Phthisis* is dependent on many causes, and its reduction will

depend largely on better feeding, avoidance of excesses, freedom from overcrowding, and destruction of infective matters, etc. Just now there is a slight tendency to an increase in the death rate. This is because the adult population is increasing relatively to the juvenile, and the adult population suffers more from consumption than the young population.

*Bronchitis* is fostered by squalor and dirt in and about the house. It will be seen, however, that from 1873 onwards to 1892 there was an increase in the death rate from bronchitis. That was due, in part at all events, to influenza.

From *erysipelas, other septic diseases, and abscess*, etc., there has been a diminution in the death rate, showing that people are observing more cleanliness.

*Puerperal Fever*, which is another septic disease, shows in the last few years a tendency to diminish. This disease is dependent on the education of midwives, as well as on cleanliness of person and the house.

As regards the septic diseases (Table II.)—

*Enteric Fever* is the prevalent disease in that group. It is largely dependent on water supplies, milk supplies, and closet conditions.

*Diarrhœa* depends largely on season, and on local conditions, especially of temperature; on the cleanliness of the milk supplies, on the observance of a proper technique of infant feeding, and also on proper cleansing arrangements.

*Scarlet Fever and Diphtheria* are both checked in their spread by isolation in hospital. In Scarlet Fever also careful antisepsis is required

In one of those reports (which may be regarded as the classics of the literature of Hygiene), Sir John Simon said: "It has now for some time been taught in the Reports of the Registrar-General that of the entire annual mortality of England at least a fourth part is of artificial production."

"England is divided into 628 registration districts. Of these there are 64 (containing a population of about a million inhabitants) wherein the annual death-rate per 100,000 ranges



from 1,500 to 1,700. But the average death-rate of England is 2,266. Nearly nine-tenths of the registration districts of England show death-rates which are in excess of 1,700, and which, in some notorious cases, run up to 3,100, 3,300, and 3,600. No one pretends that people live too long in the 64 districts first referred to. That life is artificially shortened in the other 564 districts seems the necessary alternative.

. . . . "It cannot be far from the truth to assume that if there were no artificial interference with the duration of life, death by natural decay would, in this country, under its present circumstances, naturally happen at about 80 years of age.

"Now, little more than a tenth part of the deaths of England happen at 75 years and upwards. And thus, physiologically speaking, one may say that at least nine-tenths of the entire mortality occurs more or less prematurely."

But he proceeds at once to guard against misapplication of this statement by showing that premature death could not be entirely absent from any given generation, except on condition that the generation had started with perfect innate healthiness, and that henceforth no extrinsic cause of death had been against it, conditions which are, of course, impossible of attainment in one generation.

And, further, as shown by Sir John Simon, there are various causes of premature death, such as the diseases of childhood—*e.g.*, whooping cough, measles, and scarlatina, which are practically inevitable. But, after taking into account all such considerations, the conclusion he arrived at was "that the inevitable influences in question are in some districts of England greatly more fatal than in others, and, consequently, there is strong *prima facie* grounds for believing that the local excesses of fatality are due to local circumstances of aggravation; that these aggravating local circumstances are such as it is fully possible to counteract; and that of the total mortality ascribed to those influences in England a very large share is preventable.

. . . . But a large share of the premature mortality of England depends on diseases respecting which it cannot be

contended that they, like those last discussed, are to a certain extent inevitable. On the contrary, thousands of deaths annually result from diseases which are in the most absolute sense preventable, diseases which either will not arise or will not spread in communities which observe certain well-known sanitary laws. For instance, there are certain diseases which it is hardly a metaphor to say that they consist in the extension of a putrefactive process from matters outside the body to matters inside the body, diseases of which the very essence is filth; diseases which have no local habitation except where putrefiable air or putrefiable water furnishes means for their rise or propagation; diseases against which there may be found a complete security in the cultivation of public and private cleanliness. Yet some tens of thousands of deaths annually arise in England from these diseases. And, again, there are diseases of other kinds which annually kill some thousands more of our population, though the appointed preventives are so definite and so accessible that scarcely a death from such causes ought to occur in any civilised country." Then follows an analysis of the extent to which various diseases are wholly or partially preventable. These include diarrhoeal complaints, cholera, pulmonary affections, phthisis, scrofula, diseases of childhood, infectious diseases, ague, scurvy, convulsive disorders, puerperal fever, erysipelas, and some others. But the conclusion of this valuable report gives the point I desire to bring out into bold relief. Sir John Simon says: "My own seven years' experience in the service of a local sanitary authority has given me a strong belief in the general disposition of such authorities to exert themselves efficiently against causes of premature death, when but once they have become fully and publicly informed of the existence and fatality of such cases. *Fully informed*, I say, because the non-removal of evils which occasion so much human misery commonly depends much less on the supineness of the local authority as its primary cause than on the absence of local consciousness as to the real facts of the case. *Publicly informed*, I say, because local sanitary authorities, exercising their powers *virtually without*

*control*, and, being like individual men, not incapable of indolence and error peculiarly require that their fulfilment of very important duties should be subject to public criticism. Failing this check, it is unquestionable that the existing constitution of such authorities must sometimes endanger the objects for which they are constituted. Elected on the principle of being the representatives of ratepayers, the members are sometimes a little apt to forget that for sanitary purposes they are also the appointed guardians of masses of human beings whose lives are at stake in the business. They do not always remember that the interests of life are at least as sacred as the separate interests of pocket. And this danger especially deserves to be guarded against, for it has not infrequently happened that local owners of low house property have procured themselves to be elected members of sanitary boards with a view to the protection of their own unworthy interests by systematic resistance to sanitary improvement."

In this utterance Sir John Simon went to the root of the whole question. The constitution of local sanitary authorities and their virtual freedom from control is as true to-day as when Sir John Simon wrote, as the following illustrations will show: A few years ago I was auditor to a certain municipality; in my first report I pointed out that the rates laid for the year under audit were inadequate by a very large sum (nearly £50,000). In the previous year I found that a similar sum had been short, and the year before that, for obvious reasons, a small surplus was shown; but for the year when the report was made the rates had been laid upon the same estimates as those for the two previous years, showing each a large deficit, so that at the end of that year there would be, after deducting the surplus of four years previously, a deficit of about £120,000. My report was presented in time to permit of a supplementary rate being laid—*i.e.*, within six months of the levying of the first rate, but the report was held back until the legal limit had expired, and an attempt was made to make scapegoats of certain officials. One who deserved punishment got it, but I succeeded in preventing

a gross injustice to others who had done their duty, and were over-ruled. The person upon whom rested the responsibility of laying a rate, which he knew to be too low, held an office which gave him command of the situation; and I found, on inquiry, that he was the largest owner of slum property in the town, and would have to pay any increase of rate out of his own pocket, as the property would not stand any increase of rent. Not a word of censure was passed upon that individual, although the information to convict him was before the Council; not a word of acknowledgment was made to the auditor. The offender went to his grave, and there was a pæan of praise over it when the announcement was made that he had left a considerable legacy for the endowment of a church! But it needs no specific cases of axe-grinding to illustrate Sir John Simon's statement. Take a few cases of resistance to sanitary reforms nearer home. It took about 12 years of the combined efforts of the Manchester and Salford Sanitary Association and the Manchester Society of Architects to effect the codification and amendment of the building bye-laws of Manchester, which were previously distributed amongst numerous local acts in such a way as to impose practically no check upon the speculative builders, with the result that much of the dwelling accommodation, erected prior to the last ten years, could not be regarded by a qualified expert as fit for human habitation. It took ten years of strenuous effort by the Sanitary Association and the Rector of St. Mark's, Miles Platting, to secure protection for the residents in that densely-populated district against the vile chemical nuisances to which they were exposed, and it would probably have taken twice as long to overcome the selfish interests to which the nuisances were traceable had it not been for the catastrophe of two years ago, when the street manholes of the sewers for the length of about a mile were blown up by the gases discharged into them. It took six years of effort by the Sanitary Association and Ladies' Public Health Society to get the experiment tried of providing cottage baths and washhouses, even on the partial scale of a washhouse in Ancoats, which enables housewives to



tako their washing there, and, with the aid of all necessary conveniences, to get the work, that previously took a day's labour, done in an hour or two, and obviated all the discomfort of "washing day" in the cottages, a not infrequent cause of driving the men, after their day's work, into the public-houses. A proposal was recently made to the Parks' Committee (who now supply music in the parks in summer) to provide concerts in the local town halls in the winter, with the view of replacing the former entertainments in low public-houses and beershops, which the licensing magistrates are rapidly suppressing. But this is not regarded as fit work for the Corporation, and the chairman of the Parks Committee, in making this announcement, graciously suggested that if a voluntary society would undertake the work perhaps the Town Halls Committee would make a slight reduction in the charge for the use of the halls. Instances of this kind might be multiplied, but enough has been said to show the nature of influences adverse to the public health which continue to flourish under the present conditions of election to our town councils, and the absence of efficient control of those bodies. It is not good for any institution, any more than for any individual, to be free from control. The education of public opinion in this country is too slow a process to afford the necessary promptitude of response to the public demand, at least as far as progress in social reform is concerned. Were it not for the keen interest taken by the people in politics, Parliament itself would be as backward as municipal authorities; but as matters stand it is not advanced legislation that is required, but effective administration of existing laws. This was forcibly expressed by Sir John Gorst in his recent address in Manchester, in which he said:—

"The best way, therefore, of obtaining social reform through administrative action is to put pressure upon local authorities to improve their administration. It is most essential that local authorities should be induced to take stock of their present powers, because there is no doubt that, although some local authorities do much, as a rule local authorities do not sufficiently

avail themselves of the powers which the Legislature has put in their hands. I do not wish to undervalue the enormous improvements which some municipalities have made; no doubt they have done a very great deal but I doubt whether any municipality has done all it could do, and all legislation has given it power to do. Before we go crying to the Government to give additional powers, it would at all events strengthen our hands if we were able to show that local authorities had exercised the powers they already possessed, and that the municipalities themselves demanded and desired that those powers should be increased. Municipalities have the power to acquire land on which to build workmen's dwellings, but how many have exercised it? Then they have enormous sanitary powers. In the name of sanitation a local authority can carry out a vast amount of social reform. They have the power to make the houses of all the people in their district clean and wholesome. They can provide baths and wash-houses, and it is gratifying to know that there are some, including Manchester, which have availed themselves of this power. They have also power to supply the people with libraries, power to make recreation grounds and parks, and power to assist promising emigrants. Instead of the old imperfect powers of supplying and managing elementary and technical schools, through School Boards, Technical Institution Committees, and Volunteer Managers, they have now the full and complete control of the primary and secondary schools in the district. Putting aside all the heated controversies that have arisen respecting certain parts of the new education scheme, I believe that under this power an enormous improvement will be made in the social condition of the people. The improvement would be greater still, if the new Education Authority had increased powers to look after the bodies as well as the souls of the children in the schools under their charge. Let reformers, then, begin by getting all the improvements they can out of the local authorities of the places in which they live, and when they have achieved that, they will be in a strong position to go to Parliament for an increase of the powers of local authorities."

If England is to maintain its lead as a nation it should forthwith crown the organisation of its sanitary service by advancing it to the rank of a Ministry. Of course, this will not be achieved without a determined struggle; the selfish interests which have so long been able to stultify the intentions of the legislature will certainly resist the curtailment of their present influence, just as the chemical manufacturers resisted the passing of the Alkali Acts, which rendered them liable to strict inspection; but they found that instead of injuring them in any way the new system of inspection proved very beneficial, as the highly-trained chemists employed by the Government were able to suggest to them such improved methods that it has come to pass that works have since been actually erected for producing, under safe conditions, the products which were wasted before, and which caused intolerable nuisance to the public. Probably there would be similar experience under a Ministry of Health; but however that may be, the public health must be protected at all costs. I cannot better conclude this very imperfect paper than in the eloquent words of Thomas Carlyle: "Ever toiling Manchester, its smoke and soot all burned, ought it not among so many world-wide conquests to have a hundred acres or so of free green field, with trees on it conquered for its little children to disport in; for its all-conquering workers to take a breath of twilight air in? You would say so. A willing legislature *could* say so with effect. A willing legislature could say very many things, and to whatever 'vested interest,' or such like, stood up gainsaying merely 'I shall lose profits,' the willing legislature would answer: 'Yes, but my sons and my daughters will gain health and life and a soul.'"

## APPENDIX A.

EARLY PROPOSAL FOR A MINISTRY  
OF HEALTH.

*(Extract from a Tract dated 1689, now in the Manchester  
Free Reference Library.)*

## A

## PROPOSAL

For the better Securing of

## HEALTH.

Humbly offered to the Consideration of the Honourable  
Houses of Parliament.

This last years Bill of Mortality, as well as the many poor Diseased, have given to some a just occasion of Reflecting on the great Numbers which Annually Dye within the City of London, and parts adjacent, comprized in the Weekly Bills of Mortality; whereof many, by Gods Blessing upon the true Methods of a Skillful Careful, and early Application of the Art of Physick, might in all probability have been preserved alive.

Therefore, in order to so good and great an End, it is humbly proposed, that a more compleat practical Constitution of Physick according to the following Method, may be upon national Demonstration Established; whereby Care may be taken, that all Sick, as well Poor as Rich, shall be Advised and Visited, when needful, by Approved, Skillful Physicians, and Surgions, and furnished with necessary Medicines in all Diseases, except the Pox, Midwifry, and Cutting for the Stone; for which three last Calamities, some small Additional Allowance may be settled: Because the Pox may not be hereby encouraged, and Deliveries require mighty Pains, and unseasonable hours; and the Stone is not only a particular Dexterity but requires much Attendance.

And all this, (Except as before Excepted) for a small certain Sum Assessed upon each House, not exceeding                    for the greatest Family nor under                    for the meanest, that are not Objects of Charity: Which respective Sums will not be the third part of what is now spent, only in Apothecaries Bills in a Healthy year. And for this every Individual Person of the Family, as well the Lodger



and Servant; as Master, Mistress and Children, shall, when there is occasion, be sufficiently accommodated: Whereas many at present miserably perish without the least care, and for want of timely and skillful Assistance. In short, It's proposed to serve all the Families, Rich and Poor, Little and Great, within the City and parts adjacent much better and cheaper than at present, with Visits, Advice, Medicine and Surgery.

It is also further humbly offered, That effectual Care be taken to reform the Practice of Midwifry, according to a Proposal ready to be presented when commanded: And that the Laws in being may be revised and amended, which provide against the Sale of unwholesome Flesh in the Markets; and the Bread may be well Baked; Wine not Sophisticated; Beer well Brewed; and the Houses and Streets well cleansed from Dirt and Filth: All these being very common causes of Diseases and Death.

## PAGE 2.

This Constitution consists of the following Members, more or fewer, as the City Occasions, and Necessities may require.

FIRST, Ten Noble Curatores.

SECONDLY, Physicians.

One Superintendent or President.	Fourteen Junior Visitors.
Two Sub-Intendents.	Seven Sub-Secretaries.
Three Senior Heads of the College.	Forty two Chief Itinerants.
Four Junior Heads.	Forty nine Junior Itinerants.
Fourteen Senior Visitors.	Seven Senior Amanuenses.
Seven Principal Secretaries.	Fourteen Junior Amanuenses.

In all One hundred sixty four.

Of this Number, besides the three Intendents in the Chief College in Warwick-lane, there will be Twenty three Physicians more: As also Twenty three in each other the six Colleges. Seven Colleges being thought at present more than sufficient to serve the Bills of Mortality, with Convenience and Ease to the Inhabitants thereof: In each of which Colleges there are as followeth.

One Master, Head or Principal.	Six Senior Itinerants.
Two Senior Visitors.	Seven Junior Itinerants.
Two Junior Visitors.	One Senior Amanuenses.
One Principal Secretary.	Two Junior Amanuenses.
One Sub-Secretary.	

In all Twenty three.

The convenient places for the Seven Colleges may be

- |                         |                                 |
|-------------------------|---------------------------------|
| 1. The Present College. | 5. Southwark near the Hospital. |
| 2. Lincolns-Inn-Fields. | 6. Near Bishops-gate.           |
| 3. Near Charing-Cross.  | 7. In or about Goodmans-fields. |
| 4. Near The Poultry.    |                                 |

Which places are to be published in Print about a Fortnight before the Settlement, that all may know where to apply for help.

### THIRDLY, Chyrurgions.

One Master.	Twenty eight Assisstants.
One Deputy.	Fifty six Mates.
Seven Wardens.	Twenty eight Junior Mates.

In all One hundred twenty one.

Of this Number, besides the Master and Deputy, at the Chief College, there are Seventeen in each of the Colleges, viz.

One Warden	Eight Mates.
Four Assisstants.	Four Junior Mates.

In all Seventeen.

Some of which, besides Chirurgery, shall practice Midwifry, cut for the Stone, Reduce Dislocations, And draw Teeth, in each College.

### FOURTHLY, Apothecaries.

One Master.	Forty two Mates.
One Deputy.	Forty two Journey-men.
Seven Wardens.	Forty two Sub-Journey-men.
Fourteen Assisstants.	

In all One hundred forty nine.

Of this Number, besides the Master and Deputy at the Chief College there are Twenty one in each College, viz.

One Warden.	Six Journey-men.
Two Assisstants.	Six Sub-Journey-men.
Six Mates.	

In all Twenty one.

If the Number of any Exceeds the Inhabitants Neecessities. it may be (as they dye out) lessened, by not supplying: But if not sufficient it may be Augmented.

## INDUCEMENTS FOR THIS NEW ESTABLISHMENT OF PHYSICK.

I. To preserve Health and save Lives, is always a Publick Good, but more especially in time of War.

II. That Medicine is highly useful to those great Ends, is and has been always the General Judgment of Mankind.

III. That every Good 2nd. *Communins eo Melius*; but that as Physick is now managed, not only the very Poor, but meaner sort of Tradesmen and their Families, Servants, and Misers, deter'd by Physicians Fees, and Apothecaries Bills, have little or no Benefit by Physick.

IV. That by these means, together with the want of timely and frequent visits, many dye yearly that might be preserved; and Epidemical and Contagious Distempers rise and are propagated.

V. That Physicians and Chirurgions may (and possible many do) having no Check, or Supervisors, for Lucre sake, prolong Cures to the hazard of Life; and by new Experiments on their own single Judgment destroy many.

VI. That Apothecaries may be careless in their Mixtures, or Unskillful; or may Administer things improper or decayed, or tire their Patients with needless and nauseous Medicines for their own Advantage.

VII. Mountebanks, and Cheats in Physick, are found by Experience, to conduce extreemly to the Ruine of Peoples Healths, and loss oft-times, of their Lives, as well as of their Money.

VIII. That by this Constitution all those Ills will be prevented, all will have equal Help and Benefit: all will apply in time, since they may hope for Cure without fear of Charge: Diseases taken early more easily removed: Frequent Visits will be made, which in acute Diseases are most necessary: changes therein being often so great and sudden, that Life is frequently lost for want of a timely Visit: Consultations will be had, when necessary, though of the whole Faculty in difficult cases: Medicines publickly and faithfully prepared will only be given: And Mountebanks, with such others, will hereby sink of themselves, without Law or Trouble.

IX. Nothing will be here Clandestine, that in its own Nature requires not Secrecy. No Mans Ignorance or Negligence can here be prejudicial, for the Constitution directs all, inquires into and supervises all.

X. Physick and Chyrurgery will be extreemly improved, and in little time, by the multitude of Experiments, recording of Observations, and mutual candid Assistance of the Members come near to a Demonstration.

XI. The Members of both Houses of Parliament, with their Families, not being House-Keepers in Town, will be attended Gratis: And indeed all the Inhabitants of every House, for the Small Rate charged thereon: Visits Physick, and Chyrurgery therein included.

XII. The Advantages of this Constitution may be immediately extended to the Great Benefit both of the Navy and Army.

XIII. The Improvement of Health, and Preservation of Life, Encreases People, and that Augments Consumption, Trade, Power, and Wealth. And many Forrigners will repair hither for Remedy, when incurable abroad.

XIV. The Proposers are sensible that many Objections will be raised by Prejudice, Interest, and for want of a true information of the nature and Tendence of this Constitution; all which they are ready to answer, and hope the Publick Benefit will outweigh all by, and little Ends.

[Printed for Tho. Salusbury at the Sign of the Temple near Temple-Bar in Fleet-street, 1689.]

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## APPENDIX B.

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### JEREMY BENTHAM'S "CONSTITUTIONAL CODE."

#### SECTION X.

##### *Health Minister.*

Art I. To the Health Minister it belongs, under the Prime Minister, (frequently in conjunction with the Preventive Service Minister) to give execution and effect to all legislative ordinances, having for their special object, the preservation of the national health.

#### ENACTIVE.

Art. 2. To this purpose, under the direction of the Prime Minister, it belongs to him to exercise, in relation to all persons, in so far as employed under him, the locative, suppletive, directive, and dislocative functions; as to his own office, the self-suppletive function; as to things, in so far as thus employed, but in concert with the Finance Minister, the procurative, custoditive, applicative, reparative, transformative, and eliminative functions; as to persons and things, the inspective; as to persons, things, and occurrences thereto belonging.



the statistic, recordative, publicative, and officially-informative; as to states of things, ordinances, and arrangements, the melioration-suggestive.

## ENACTIVE.

Art. 3. So, in relation to all such institutions and establishments as, for this purpose, are on foot or in progress, for the use of the public, at the expense or under the direction of the Sublegislatures, or of individuals, or bodies incorporated or otherwise associated, the inspective, statistic, and melioration-suggestive functions.

## ENACTIVE.

Art. 4. To the Health Minister, in relation to all Medical functionaries serving in the land, or say army branch of the Stipendiary Defensive Force, belongs moreover the locative, suppletive, directive, dislocative, and suspensive functions: the functionaries so located by him being at all times subject also to the exercise of the suspensive function, exercisable for special reasons, by the commanding officers of the several corps serving separately, from the grade of colonel of a regiment upwards. For the manner in which the suspensive function will, in this case, be exercised, see Ch. IX. MINISTERS COLLECTIVELY, Section 21, Oppression obviated.

## ENACTIVE.

Art. 5. So, as to all medical functionaries, serving in the sea, or say navy branch of the Stipendiary Defensive Force: the functionaries so by him located, being at all times subject also to the exercise of the suspensive function, exercisable for special reasons, by the commanding officers of the several navigable vessels, in and for which the several medical functionaries are at the time in question serving.

## INSTRUCTIONAL.

Art. 6. For the consideration of the Legislature it will be, whether and how far the provision in Arts. 4, 5, shall be applied to the preventive service sub-department: regard being had to the composition of this branch of the official establishment, and the distribution made of the functionaries thereto belonging.

## ENACTIVE.

Art. 7. So, as to all medical functionaries, serving under the Indigence Relief Minister, it belongs to the Health Minister to exercise the locative, suppletive, directive, dislocative, and suspensive

functions and functionaries so by him located, being at all times subject to the suspensive functions, exercisable, for special reasons, by the functionary having charge of the establishment, for the service of which such medical functionaries have respectively been located.

#### ENACTIVE. EXPOSITIVE.

Art. 8. So, in relation to the things immovable following, and the things moveable thereto, respectively belonging, to him it belongs, always in concert with the Finance Minister, to exercise the several functions procurative, custodative, applicative, reparative, transformative, and eliminative: that is to say—

1. Hospitals, maintained at Government expense: army and navy hospitals, and preventive service hospitals, if any, included.

2. Lazerettos: that is to say places, within the limits of which, for the purpose of ascertaining the presence or absence of contagious disorders, persons, or property, or both together, are confined: in this case in concert with the Foreign Relation Minister likewise.

3. Laboratories, if any such there are, in which medicines, for the use of the stipendiary branch of the land and sea defensive services, are prepared.

#### ENACTIVE.

Art. 9. In regard to the other things immovable following, so far as regards health, as also the persons therein residing, the inspective function: that is to say—

1. Prisons: and all other places, in which any person is kept under confinement.

2. In particular, madhouses, at whose expense whatsoever and under whose care soever kept up, whether at the expense of the public at large, or that of the sublegislatures, of bodies corporate, or otherwise associated or of individuals.

3. Edifices, with their appurtenances, belonging to the field of service of the Educational Minister.

4. Edifices, with their appurtenances, belonging to the field of service of the Education Minister.

#### ENACTIVE.

Art. 10. So, as to the contents of all shops and storehouses, in which drugs, designed to be employed for medical purposes, are kept for sale, or otherwise for distribution: more particularly with reference to the precautionary arrangements directed to be observed by the Preventive Service Minister as per Section 5, Art. 4, relating to the sale of poisons.

## ENACTIVE.

Art. 11. So, as to the contents of all shops and storehouses, in which instruments, designed for chirurgical purposes, are kept for sale, or otherwise for distribution.

## ENACTIVE.

Art. 12. In particular as to all such medicaments and drugs designed to be employed for medical purposes, as, from any general office or repository, have been conveyed or are appointed or designed to be conveyed, to any of the appropriate stations, in the Army Service, Navy Service, or the Indigence-Relief Hospital Service.

## ENACTIVE

Art. 13. So, as to persons, things and occurrences, the statistic and recordative functions: as to states of things, ordinances, and arrangements, the melioration-suggestive function.

## ENACTIVE. INSTRUCTIONAL.

Art. 14. In addition to the above generally-applying functions, belong to this Minister the specially-applying functions following:—

## 1. Authoritatively-eliminative function.

In the exercise of this same function, subject to appeal to the Judge immediate, he causes to be employed to appropriate means, for the elimination of all such medicaments, as, by deterioration, natural or accidental, have been rendered unfit for medical service: and on this occasion, takes care that they be either destroyed, or if put to use for any other purpose, so prepared for such use, as not to be capable of being in their relatively unapt state, applied to any medical purpose.

## ENACTIVE. EXPOSITIVE. INSTRUCTIONAL.

Art. 15. II. Aqua-procurative, or say Water-supply-securing-function. In the exercise of this function, he will take for the subject-matter of examination, the supply of water which has or may have place in such towns as the Prime Minister (Consideration had of their extent and the density of their population) shall, for this purpose, have given to him in charge: on which occasion, he will include in his observation the quantity, quality and proportionality of distribution of the subject-matter of this supply.

## ENACTIVE. EXPOSITIVE. EXEMPLIFICATIONAL.

Art. 16. Malaria-obviating, or anti-malarial function. To this function exercise will be given by keeping under review all such local situations are liable to harbour or give rise to exhalations detrimental to health.

Of the sources of such exhalations examples are the following:—

1. Lands which, to whatsoever proprietors belonging, are habitually or occasionally covered with stagnant water.

2. Mines, considered in respect of such inflammable or dangerously respirable gases, as they are liable to contain.

3. Common sewers and drains.

4. Places of interment.

5. Theatres and other similarly crowded places of public entertainment.

6. Manufacturing establishments, considered in respect of the several ways by which they are liable to deteriorate the air, by the several modes in which the operations belonging to them are respectively carried on.

## ENACTIVE. EXPOSITIVE. INSTRUCTIONAL.

Art. 17. IV. Health-regarding-evidence-elicitive-and-recordative function. To this function will be given by the elicitation and recordation of the documents following:—

1. Bills of Mortality. The matter belonging to these documents he will receive from the Local Registrars of the several Bis-sub-districts: in virtue of their several functions, death-recordative, marriage-recordative, birth-recordative, maturity-recordative, and insanity-recordative as per Ch. xxvi. LOCAL REGISTRARS, Sections 5, 6, 7, 8, 9. On this occasion, separate notice will be taken, and report made of the state of mortality and disease, in the several Hospitals and Establishments, under the management or inspection of the Army Minister, the Navy Minister, the Preventive Service Minister, the Indigence Relief Minister, and the Education Minister.

2. From the several different places, Registers of the Weather, in so far as habitually framed and preserved in the several establishments above mentioned; also from any other public sources, from whence they may conveniently be procurable; and from private sources, as far as procurable from those sources, with the free consent of the individuals interested.



## ENACTIVE. EXPOSITIVE.

Art. 18. V. Appropriate, Custoditive function. In the exercise of this function, he has charge in chief of all medical museums, belonging to Government.

## INSTRUCTIONAL. EXEMPLIFICATIONAL.

Art. 19. Of these contents of a Medical Museum, examples are the following:—

1. Anatomical Preparations.
2. Chirurgical Instruments.
3. Specimens of the *Materia Medica*, preserved for standards of comparison.
4. Herbaries.
5. Medical Books and Graphical Imitations.
6. Registers of the Weather, and Instruments for the formation of such Registers.
7. Mortality Reports as above.
8. Models of the human form, in its natural state.
9. Models of distortions.

## ENACTIVE. EXPOSITIVE.

Art. 20. VI. Aptitude-securing function. In the exercise of this function, to the Health Minister it will belong to watch over the aptitude and efficiency of the application made, of the Probationary Examination system (as per Ch. ix. Ministers Collectively. Section 16, Locable) who, with reference to all aspirants to those offices, the functions of which, are exercises of the art of medicine, in any of its several branches, and to whatsoever subject applied: in such sort that, by the operation of sinister interest—whether self-regarding, sympathetic, or antipathetic—no person relatively unapt be admitted, or relatively apt excluded: mindful, that in self-regarding interest, are included not only love of money, but love of ease.

He will, therefore, preside at all such examinations, having for Assessors, persons three or five, elected by all who, in consequence of examinations antecedently undergone by them, have received certificates of appropriate aptitude.

## ENACTIVE. EXPOSITIVE.

Art. 21. VII. Professional confederacy-checking function. To the Health Minister, under the direction of the Prime Minister and the

Legislature, and with the assistance of the Public-Opinion Tribunal, as per Ch. v. Constitutive, Section 4, 5, it will especially belong, to be upon the watch against all injury to the health of the community, by the operation of particular interests, in the breast of medical practitioners, at the expense of public interest: (and, as occasion calls, to make report accordingly:) for example, by associations among themselves for the formation of regulations and arrangements, express or tacit, concerning division of labour, rate of payment, terms or mode of attendance, or otherwise.

#### ENACTIVE. INSTRUMENTAL.

Art. 22. VIII. Appropriate-publication function. To this function he will give exercise, by giving, to the result of the exercise given to the several preceding functions, the utmost publicity that can be given to them consistently with a due regard to public economy in respect of the expense, and to the feelings of persons subjected to the exercise of his several functions: yet not so as to give concealment to delinquency, in whatever shape exemplified.

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## APPENDIX C.

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### REPORT OF ROYAL SANITARY COMMISSION. 1871.

#### SECTION 3.

*How complete Sanitary Organisation may be best obtained.*

14. We now sum up the details of sanitary organisation, which, we believe, will correspond to the three principles laid down at the outset, viz., that it should be universal, efficient, and economical.

We believe that there should be:—

I. A Minister of Health and Local Government.

II. Six permanent departments under the Minister, for—

- (a) Law of local government.
- (b) Engineering.
- (c) Registration and statistics.
- (d) Relief of poor.
- (e) Medical care of public health and poor.
- (f) Legislation bearing on the profession of medicine

III. A body of inspectors attached to the Health Office. These are to be of two kinds, as at present, with a third body of consulting experts.

1st. General inspectors attached to, and generally residing in the "registration divisions," "poor law districts," or (as they will also be) "public health areas."

2nd. Special inspectors, viz., legal, engineering, scientific, and medical.

3rd. Special experts whose names should be attached to the Office, and who should advise professionally on special points for special fees; such persons to be appointed for five years and re-eligible.

4th. Then will be required local clerks of unions, and of town councils, local surveyors under local boards and unions, local public health (medical) officers of local boards, unions, parishes, subordinate executive officers.

15. Lastly, we wish to point out both the simplicity and advantages of this organisation, with the various considerations that have led us thereto.

#### 1st. *The Simplicity.*

No office now existing need be destroyed. Some will be amplified. A few more clerks will be required at the Central Office, and an arrangement made for obtaining special advice when needed, in aid of the permanent staff of the office, and of the inspectors.

#### 2nd. *The advantages.*

The advantages are many. Not only will the plan be efficient and complete, but it will be economical. The work of the Local Government, Law, and Engineering Departments, of the Registrar-General, of the Poor Law Board, of the medical adviser of the Privy Council, will be harmonised, and will never be chargeable either with unnecessary repetitions or with omission, as at present. So also neither money nor skill will be wasted.

All reports bearing on public health will be considered one with another, mutually illustrating each other. They will cover the whole ground of the science of prevention of disease, which has become both so important and serious for the well being of old and densely-peopled countries. The connection of the office of Minister of Health with the medical profession, 4,000 members of which would be in direct relation to him, would in itself be beneficial to the whole country. It would disseminate established scientific knowledge uniformly through the country districts, affecting not the medical man only, - but the clergy and the schools, doing in that way alone as much, at least, as

direct legislation for the same purpose could do. It would bring to light in every corner all that could be advanced as bearing on the physical condition of the masses of the people, while all crude theories or impractical plans would instantly fade before the experience of the Central Office.

The publications of the statistical department would exhibit what could be shown of the progress of sickness. They might give also useful deductions from local Meteorological and scientific observations, in connection with those of the Kew, the Government Meteorological Office, the Meteorological Society of Scotland, and such private enterprises as those of Mr. George Symonds on rainfall. They would furnish data for sanitary maps, which can only be of any worth when carefully constructed on rigorous local knowledge, and they would in time get rid of the fallacious application of conclusions deduced from averages, and erroneously applied to particular places or instances. In this way the real causes of variation in death rate would be more surely ascertained than at present.

Great encouragement should be given to the local public health officers to send in any observations which would promote the progress of accurate knowledge.

The British Public Health Reports thus constructed, printed in a uniform 8vo. form, stitched in a plain distinctive wrapper, and issued in five distinct parts—legal, statistical, engineering, medical (including medico-legal), and general papers of inspectors—would be a series of great value. The Central Office should immediately, on the first issue of the collected series, make arrangement for regular interchange with foreign countries of similar reports, according to the established usages of academies. These documents should be accessible for reference in the public health library of the minister to all persons connected with the department.

Public health laboratories should be maintained or aided by grants from time to time. In them not only points bearing on the general pathology of man and animals would be from time to time investigated under the best guidance, but persons would be trained to be thoroughly qualified in all medico-legal questions. Hereby some of the scandal of *ex-parte* scientific witnesses might be checked or removed. Such laboratories should be aided or maintained as well in the metropolis as in some of the great towns where scientific institutions and medical schools exist—*e.g.*, Oxford, Cambridge, Birmingham, Leeds, Newcastle, Bristol. These centres are conveniently situated for various sections of the kingdom. From the State-aided laboratories the inspectors would obtain analyses of waters, or, in disputed cases, of any substances requiring examination.



In these observations we have endeavoured to state the points which, in the present condition of sanitary knowledge in England, appear to be the most urgent. We have remembered that Her Majesty's Government directed us to inquire into the operation of existing laws bearing on all matters which concern the public health, and to suggest improvements in them, or any portions of them. It was necessary for us to inquire to a certain extent into the subject matter for which these laws were framed, in order to satisfy ourselves, from the evidence of persons practically acquainted with their working, of the extent and direction wherein a reconstruction of them was necessary. We find a general consent in the minds of persons of every class, that it is not so much lack of science nor lack of machinery, but rather a proper arrangement of the machinery, which is needed for taking due care of the public health. To this part of the subject, therefore, we have mainly addressed ourselves, rather than to the further investigation of actual causes of disease. With these, so far as it is permitted to man to control the operations of nature, we are confident that modern science can and will deal.

We are therefore convinced that such an adjustment of the law as may give scope to scientific inquiry in every part of the country, is in this matter the truest wisdom.

Freedom will be both ensured and guided by the plan which has been proposed, and which, it was necessary to set out fully even in discussing this special medical portion of the organisation, in order to place that portion in its true light.

Doubt has sometimes been expressed whether the ordinary medical practitioner is sufficiently instructed in preventive medicine. Such doubt would soon prove unfounded, if the organisation we propose were adopted. The medical officers under the Poor Law are perfectly able to fill up returns, make reports when called upon, point out cause of ill-health, and superintend such remedies as the central authority may suggest or direct. No ordinary medical officers should be expected to discharge the duties of the police, the lawyer, or the engineer.

Besides, it may be stated that such is the improvement, in the last twenty-five years, in the means of education and in the character of medical students that a far more serious difficulty has suggested itself to our minds, viz., whether highly-educated youths will take the post, at present ill-paid, which the public may offer to them; and whether the rural districts when the younger and more highly-trained classes of men have occupied the field of practice will be supplied at all at the present rate of remuneration.

We hope that this will not be the result of higher education; but the Legislature and the public should be prepared to meet it; at all

events, there can be little doubt that, when it is found that there is a larger number of these well-educated young men than can find a living by private practice, there will be more than enough qualified to accept these appointments, and that, and in former times, moderate views of life will be found in company with high intellectual attainments.

16. In the evidence before us more than one person has spoken of diplomas in State medicine. We do not think these diplomas when instituted should be required as necessary from the ordinary public health officers, or at present even from the inspectors.

But in either case when the instruction, qualification, and title of this new diploma shall have been further defined the Government should encourage all health officers to obtain some such qualification, or at all events the special training which it implies. We do not think this training should be forced on every medical practitioner as a condition for an ordinary licence.

17. We forbear to enter into complete details in this or any other part of our subject, since we think that the Health Minister will not only have the greatest opportunity of laying down the particulars for any such scheme, but should, indeed, in fairness, be left unhampered by suggestions which he might find it expedient to accept.

For the same reasons, we have not thought it our province to do more than hint at the detailed constitution of the Central Office.

That Office would start with a body of very efficient public servants. With respect to the legal, Engineering, Statistical, and Medical Departments of the Local Government Act Office, Registration Office, Poor Law Board, and Privy Council, well-informed persons would unanimously confirm this statement. Consolidation is all that is required to make a central Public Health Office in Great Britain the most efficient that has yet been devised. If this consolidation were achieved, a reasonable number of subordinates under the existing chiefs of departments would effect all that can be desired. The moderate number of inspectors and of clerks that have done the great work hitherto accomplished is a guarantee of economy under the new administration.

18. We may add that although we much regret that Scotland and Ireland were not included in the terms of the present, as well as of the former Commission, it has nevertheless proved to be necessary to examine several persons of eminence from those parts of the kingdom. We are satisfied that the plan proposed for England will be found equally adapted both to Ireland and to Scotland, and will be favourably received in both countries, where in truth sanitary administration is in some respects in advance of us. In Scotland, indeed, under the Public Health Act of Scotland, 1867, summary

powers are given to the local authorities to execute and to the Board of Supervision for the relief of the poor to direct, complete regulations in every department that concerns the public health. And in Ireland the public health functions of the Poor Law Commissioners are becoming more and more extended and effective. It is satisfactory, moreover, to find that the noble efforts which are made for the sanitary improvement of India will support and be supported by the general methods herein recommended. And although we shall have no formal connection with the sanitary codes of the United States, Germany, France, Denmark, Belgium, and other countries that have supplied us with help and suggestions, yet we are equally sure that the general scheme here proposed will coincide with the broad views of some of the best thinkers in those countries.

19. We have not touched on the relations to the Central Health Office of the skilled class of medical officers in the Army and Navy, to whom the country owes much of the present amount of sanitary knowledge. The working of the Contagious Diseases Acts, the questions affecting military and naval Hospitals, and the important statistics of the Army and Navy, will make it quite necessary that these bodies should be represented in some manner at the Public Health Office. We presume that the Medical Council of Education also will have an immediate official connection with a Minister whose office, under the proposed scheme, would contain so many persons intimately acquainted with the medical necessities of the nation.\*

Lastly, we have not omitted to weigh the relation of our views to further social changes in respect of local administration. Changes in local taxation, in counties, in unions, even in parishes, will not affect our system, nor would the mode of election of local and sanitary boards, nor even any radical change in the constitution of the Poor Law Board so often discussed; changes in these could not injure, probably would aid our sanitary staff. If the sanitary units be small, they will be united; if they be large, they will be subdivided for various purposes. The population of these islands is still so irregularly massed that its sanitary wants cannot be provided for by one rigid set of rules; and it is here and there so dense that the arrangements of nature for water supply and drainage are as inadequate, as they have long become for the production of common food. All the more must there be an all-pervading elastic system which may act on local ignorance with rapidity, and may at the same time allow local knowledge and energy

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\* This connection of the Medical Council with the Minister of Health need not affect the relations of the Medical Council to a Minister of Education, if such relation were also deemed to be desirable. It is, at all events, to be wished that the President of the Medical Council should have direct confidential access to some responsible minister.

to have full play, in making the best of the complicated and often miserable conditions of modern life. In all conceivable modifications of the national economy a staff such as is now proposed will in some mode of organisation be necessary for the maintenance of the physical powers of our people.

October 18th, 1870.

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## APPENDIX D.

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### NATIONAL LOSSES RESULTING FROM DEFECTIVE ORGANISATION OF PUBLIC HYGIENE.

(From Palmberg and Newsholme's "Public Health  
and its Application.")

That which impedes the organisation of public hygiene is on the one hand ignorant of its importance and value, and on the other the initial cost of its establishment. With regard to the question of expense, it may easily be proved that the cost of an efficient hygiene is much less than that resulting from its absence.

That which most powerfully contributed to induce the English Parliament to adopt the code of hygiene now in force in that country was the calculation of the eminent hygienist, Dr. John Simon, by which it was shown that 125,000 died prematurely every year because of bad or insufficient sanitation. But the wealth of a nation consists almost entirely in the labour and active force of its people, and hence this number of deaths was a distinct and important national loss.\*

The question, "At what sum the life of a man ought to be valued?" has been treated in France and in England by several distinguished economists.

The result of their inquiries shows that the life of a man represents a capital sum, the interest on which is equivalent to his annual expenses.

Dr. Farr, of London, concluded from his researches that the value of the labour of each individual, equally distributed among men, women, and children, is about £159.

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\* "The greater part of the national wealth is the income from the work which is the outcome from the national health," Sir Jas. Paget ("National Health and Work," London, 1884).



Sir Edwin Chadwick, of London, estimates the value of each individual of the working class at about £200.

Dr. Rochard, of Paris, presented to the Health Congress at La Haye, in 1884, a calculation estimating the value of a human life in France at a much lower figure, viz., £40, or thereabouts.

Taking the number of preventable deaths in England to be 125,000, as above stated, and estimating the value of each life at £200, the annual loss to the English nation, previous to the introduction of an effective system of public hygiene, amounted to the colossal sum of £50,000,000 sterling. Even this large sum is far below the truth.

Since the deaths amount to but a little more than 4 per cent of the persons attacked, it follows that about three million of persons were confined to their beds by sickness. If we estimate 30 days for the period during which each patient was kept from work, we shall be rather under than over the mark. Also of the three million of persons attacked, probably, it is estimated that one-third were of the working age, *i.e.*, between 15 and 60 years old; and if 30 days be taken as the average period of absence on account of sickness, it follows that the loss to the country thereby amounted to 30 million days. The day's wages in England being equivalent to 5 francs, the total loss amounts to 150 million francs, or £6,000,000 sterling. The expenses for the maintenance of the sick, for nursing and medicine are at least two francs a day, and for three million patients during 30 days this would amount to 180 million francs, or  $7\frac{1}{2}$  million sterling. Thus we have—

Loss occasioned by death	= 500,000,000 francs.
Value of days lost through illness	= 150,000,000 francs.
Expenses of sickness	= 180,000,000 francs.
<hr/>	
Total	830,000,000 francs.
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Thus the loss to England each year arising from defective sanitary organisation amounted to over £33,000,000 sterling.

From the calculations of Dr. Rochard, it appears that the annual loss occasioned to France by deaths and sickness amount to £70,000,000 sterling, and if this amount could be reduced by only one-tenth the gain to France would be at least £7,000,000 sterling per annum.

If in Finland the mortality were reduced to the same proportion as that of Norway and Sweden—that is to say, to 17 per 1,000, a supposition which is not extravagant, considering the close natural affinities existing between these countries and the similarity in the

condition of its inhabitants—there would result a diminution of the annual deaths in Finland amounting to at least 11,017 persons.

Adopting, therefore, the same method of calculation as above employed, and assigning to each life in Finland a value of £25, counting only 1 franc a day for wages, and only 25 centimes for the expenses of a patient per day, the annual gain to Finland would amount to more than £630,000 sterling.

What important improvements could be effected in public hygiene with only a small fraction of this amount we need not stop to point out!

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## APPENDIX E.

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### CONTROL OF PUBLIC HEALTH ADMINISTRATION IN OTHER COUNTRIES.

From Palmberg and Newsholme's "Public Health and Its Applications."

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#### FRANCE.

The head of the Public Health Service is the Minister of the Interior. Next to him comes the *Comité Consultatif d'Hygiène Publique*, whose function it is to give advice and report on all sanitary questions submitted to them. The Comité, in addition, indicates to the Minister the questions which it thinks ought to be submitted to the National Academy of Medicine. Each year a report on the work of the Comité, and the sanitary improvements which have been effected, should be published. The Comité consists of 23 members, and the following *ex-officio* members: (1) The Superintendent of the Consulates and of Commercial Affairs to the Minister of Foreign Affairs; (2) the President of the Council of Health of the Army; (3) the President of the Council of Health of the Navy; (4) the Director-General of Customs; (5) the Director of the General Administration of Poor Relief; (6) the Superintendent of Domestic Commerce to the Minister of Commerce; (7) the Inspector-General of the Sanitary Services; (8) the Inspector-General of the Veterinary Schools; (9) the Architectural Inspector of Public Works. The other members,

of whom eight should be medical men, are chosen by the Minister. When one of these retires the Comité submits a list of three persons, from whom the Minister makes his choice. The President and Vice-President are nominated each year by the Minister from the members of the Comité. The Minister also chooses the Secretary, who has a vote in the meetings. The Minister has the right, if he thinks necessary, to call in specialists to the Committee, with power to vote. The Comité meets at least once a week. The members divide into sub-committees for the study of questions. The constitution and number of members of these sub-committees are determined by the President.

For the direction of urgent sanitary matters the Minister has near him a Council consisting of the President of the Comité Consultatif, the Inspector-General of the Sanitary Services, the Professor of Hygiene of the Faculty of Medicine of Paris, and the Superintendent of Commerce. The members of the Comité receive payment for each meeting. A laboratory is at the disposal of the Committee for the education of hygienists and health officers.

Each district must have a *Council of Health*. The number of members varies from seven to fifteen. They are nominated by the Prefect every four years, one half being newly appointed every two years. Health Committees may also be instituted in the chief towns of the canton at the discretion of the Prefect, after consulting with the Council of Health of the district. At the head of each department is a Council Departmental of Public Health, whose members are also appointed by the Prefect. The Prefect or the sub-Prefect presides over the Councils in the departments and districts. In the chief towns of the cantons the Mayor is the President of the Committee, and the Council or Committee chooses its own vice-president and secretary for the period of two years. The ordinary meetings should be held every three months at least, and at any other times when they are convened. The Committee of a chief town of the canton can be called to sit with the Council of Hygiene of the district, its members having a deliberative voice in it. The district Councils of Hygiene are charged with the care of those sanitary matters relating to the district which are referred to them by the Prefect or sub-Prefect. Some departments have created *Sanitary Inspectors* for the control of the public health, and each district is expected to have also a medical adviser as to epidemics. The National Academy of Medicine of Paris forms part of the sanitary administration. It is the highest scientific authority from the medical and hygienic standpoint. It has the supreme control of vaccination, and possesses a station in which to practice it. It possesses also a library, laboratory, etc. When so directed by the Government the Academy appoints certain of its

members to visit localities infected by an epidemic or epizootic, mineral-water resorts, and other public establishments.

In commenting on the French System, Dr. Newsholme says: "This system would be excellent if the police had not retained a chief control over sanitary matters, and if the Councils had not been reduced to mere Consultative Committees, without the right of initiative. They have not even the right to meet unless called together by the Prefect, who has no special knowledge of sanitary matters; and yet it is for him to decide whether questions of health shall be examined by a competent authority or not. In some departments it has happened that the Councils of Health have not met once in the course of a whole year.

#### GERMANY.

As in France, the administration of the law relating to the public health in Germany is largely in the hands of the police. The country is still without a general sanitary law. There is no lack of detailed and precise regulations; but as the orders are not classified, the entire collection must be consulted in order to understand them. For this reason most of them are unknown to the mass of the people.

The confederation of Germany possesses a Federal Council, and among the regulations which are applicable to the whole Empire are those which refer to the public health.

The separate States have the right to lay down rules for themselves, providing that they agree with the fundamental principles of the general laws.

Allowances being made for the imperfections indicated above, the importance of hygiene is more fully acknowledged in Germany than in any other country on the Continent.

*Sanitary Administration.*—The Chancellor of the German Empire has the principal direction of the public health. He is assisted by a Consulting Council under the title of the IMPERIAL OFFICE OF HEALTH.

The duties of this Council are as follow: It collects information as to the sanitary legislation of other countries, prepares new laws and sanitary regulations, also exact hygienic and medical statistics.

It is composed of a director, four ordinary members, eight medical assistants, and a chemist. Most of the assistants are military doctors, appointed to perform these duties in turn. Besides the above, the Committee or Council of Health includes 25 honorary members chosen from different parts of the Empire, doctors, engineers, architects, apothecaries, and veterinary surgeons. They are also consulted when problems of general importance require solution.



In the separate States, on which devolves the duty of watching over their individual sanitary services, the Minister of Public Instruction has the direction of the Council, or failing him the Minister of the Interior.

In Prussia the Minister of Public Instruction has also the title of Minister of Ecclesiastical and Medical Affairs. A special section, placed under his direction, undertakes the management of hygienic and medical questions. It comprehends five consulting members, three of whom are doctors.

A scientific and medical commission, and a technical department for pharmaceutical subjects, assist the Ministry, under the title of consulting authorities.

The administration in Prussia may be regarded as virtually the model for all the German States. It is as follows: The President has the charge of matters relating to the public health in every province. He is assisted by a Provincial Council, which has no doctor on it; but on medical and hygienic affairs he consults a medical college of the province (*Provincial-Medicinal-Collegium*), composed of doctors, a professor of midwifery, the director of asylums, a veterinary surgeon, and an apothecary. The functions of this college are: To give advice on questions of hygienic and medical law; to propose measures necessary in case of an epidemic; to furnish a periodical account of these functions in reports on the sanitary condition of each province.

Each province is divided into several districts (*Regierung-Bezirke*), having each a president, assisted by a Council, one member of which must be a medical councillor (*Regierungs-Medicinalrath*). This last duty is usually entrusted to an old physician of the district (*Kreisphysicus*).

The consulting physician of a district is entrusted with the superintendence of the sanitary service, medical affairs, and pharmacy; also the control of the Relief Board. He is expected to make tours of inspection in his district every year. The district is sub-divided into sub-districts (*Kreise*), in which the administrative authority is called the *Landrath*. In each of these sub-districts a district physician (*Kreisphysicus*) is placed at the head of the sanitary administration. He has a surgeon as assistant.

In Germany the district physician is the real chief of the department of public hygiene, as he supervises the carrying out of the necessary measures by the local authority (*Ortspolizei*). His duties are not always the same in different States.

## AUSTRIA.

The head of public hygiene in Austria is the Minister of the Interior, all its affairs being submitted to him by a *Sanitätsreferent*, who is a doctor of medicine.

In very important cases the Ministry asks the advice of the higher Sanitary Council (*Oberster Sanitätsrath*), composed of at least six ordinary members chosen by the Government from the principal doctors in the capital. They bear the title of *Obersanitätsrath* (upper counsellors of health), but have no fixed salaries, being paid by fees. The Council chooses its own president and vice-president. Additional members may be added if necessary. The governor of each province of the Crown (*Kronland*) has his own referee (*Sanitätsreferent*), and his provincial council of health (*Landessanitätsrath*), composed of from three to six ordinary members, and two members elected by the representatives of the province (*Landesausschuss*). In case of necessity additional members may be called to assist in the Council.

These functions are honorary, no salary being attached to them. The Council of Health collects statistics relating to hygiene, and presents a report every year, accompanied by proposals made with the intention of improving the sanitary régime.

In the different districts (*Bezirkshauptmannschaften*) the interests of public hygiene are confided to the direction of a doctor (*Bezirkärst*), who has nearly the same duties as the Kreisphysiens of Prussia.

The State superintends the general direction of the sanitary service, and is responsible for general measures relating to the public health, while special arrangements devolve on the Communes.

The following services are regulated by the State: Superintendence of the staff, and sanitary inspection; superintendence of hospitals, asylums, and places for vaccination; bathing and hydropathic establishments, for the opening of which a special authorisation from Government is required; the application of the laws concerning infectious diseases, endemic diseases, epidemics, and quarantine, the sale of poisons and medicines; vaccination, forensic medicine, and burials.

The Communes take charge of the streets, roads, markets, places for public meetings, habitations, sewers and their cleaning, drinking water, foods and the vessels which contain them, public baths; they also build and inspect mortuaries, places of burial, cattle markets, etc.; and obtain medical care and relief in cases of accident or confinement, take care of foundlings, idiots, deaf mutes, etc.

The Communes are also bound to carry out the measures prescribed by the administration for the prevention of infectious diseases, and

to see that the sanitary regulations are enforced. They must render regular accounts of their proceedings.

There is no sanitary law in Austria more complete than that of the 30th April, 1870. Some of its arrangements, which relate to public hygiene, form part of the penal code. The right of making sanitary regulations compulsory throughout the Empire belongs to the Reichsrath; administrative orders of less importance are issued by the Government; those embracing the duties of the Communes are authorised in the provinces of the Crown by the local administration.

#### SWEDEN.

In Sweden public hygiene has always been included in the subjects entrusted to the medical administration. . . . It is only since 1890 that the study of hygiene has been made compulsory for medical students; the University of Stockholm is still the only one which possesses a chair for that science. However, since 1874, Sweden has had a sanitary code, which is faithfully observed because of the general culture. When instruction in hygiene is more widely diffused this country will become the model of a perfect hygienic régime.

The superintendence and inspection of the public health are exercised by a special authority—the Medical Council (*Sundhet-collegium*). This is composed of a general director and four members, of whom three, councillors of health (*Medicinalråd*), have the charge of civil affairs; the fourth, the chief army surgeon, directs military affairs. The director and the other members of the Council must hold the degree of doctors of medicine. The Council has a chancellor's office and a room for accounts. The duties of the Medical Council are as follow:—

1. To supervise the public health and the treatment of the sick throughout the kingdom; to direct the medical administration of the country.

2. To furnish information and assistance when requested to the tribunals, State, and communal authorities, and other functionaries of the State.

All the institutions which belong to public hygiene and the care of the sick, such as vaccination, the staff of doctors, midwives, dentists, surgeons, barbers, veterinary surgeons, apothecaries, medical jurisprudence, asylums, and bathing establishments, are under the immediate direction of the Medical Council.

To fulfil its functions the Sundheteollegium is required to give instructions to those needing them, and special reports in certain

cases as to information obtained on the public health in general, or at the time of the appearance of an epidemic.

The regulation of 31st October, 1890, has established in each town a chief provincial doctor and sanitary statistician to report on hygienic matters to the Prefect.

The Sundhetcollegium must give attention to the dangers to health incident to certain professions, trades, etc. In these cases it must propose regulations and other measures proper for the prevention of the evil. It must watch over the doctors entrusted with the public hygiene and the care of the sick, in order to see that these duties are performed efficiently. Whenever it is informed that a Sanitary Commission has neglected to conform to the prescribed regulations the Government must be advised, and good order restored. When a serious epidemic breaks out, or much sickness occurs, it may appoint assistant doctors, who will help in the care of the patients. It may also propose general measures likely to improve sanitary arrangements and the service of the sick.

The Medical Council is not authorised to issue decrees. Everything which concerns the service of the sick in the army, on land or sea, should be carefully superintended by the Medical Council, which may take any measures or give any directions it may judge necessary or useful for the welfare of the service. For this purpose the Council must present regular reports, including the recommendations of doctors having reference to these subjects. The Medical Council also draws up annual reports on the sanitary state of the kingdom.

According to the old regulations of 1822, the provincial doctor (*provincialläkare*) is entrusted with the direction of public hygiene in his province. He must give attention to everything likely to affect the health of the people. For this purpose he must carefully study the medical topography of his province, the character of the population and their manner of life, rural dwellings, the physical education of children in the country, and the domestic remedies in use. He must take care to give instruction in all these points, and oppose errors. He should pay attention to the quality of foods and drinks, especially when danger to health may be apprehended after a bad harvest, bad weather during harvest, and other circumstances. In such cases he will report the state of things to the governor of the province, in order that energetic preventive measures may be taken. . . . Vaccination is also directed and superintended by the *Provincialläkare*. Midwives and apothecaries are subject to his control. Medical jurisprudence is also within his department.

Besides the provincial doctors nominated by the Government,



there are also district doctors for the country (*Distriktslaekare*), who have the charge of the sanitary service of one or several Communes. They should perform the same duties as the provincial doctors. Towns have special doctors, whose duties are the same as those of the district doctors.

Each Commune is bound to organise and superintend hygiene in its territory. Each town must have a Commission of Hygiene (*Helsovarsnamd*). In rural Communes the Communal Council is entrusted with sanitary functions.

*Statistics.*—The pastor of each parish registers the births and deaths, and sends the register to the provincial doctor, who draws up tables of statistics, and despatches them to the Medical Council with his annual report. The Council makes a summary of all these reports, which is sent to the Government.

Health Commissions were organised by the Code of Hygiene of 1874, and the amending Code of 1885. Each Health Commission is composed of the head of the police, or, failing him, a member of the municipality connected with the police; a municipal judge, chosen by the burgomaster and aldermen; the municipal doctor; and lastly, four members of the Municipal Council. The members are elected for four years. There are as many deputy members as elected. They are nominated by the Municipal Council, or by the assembly of electors. They perform their duties in turn, according to the number of votes which they obtained at the time of the election.

The Commission meets once a month, and also whenever circumstances require. Meetings are also held at the request of the head of the police, or of two members; also when required by the communal or prefectural administration.

The Commission has charge of everything relating to the public health and hygiene in its district. It should make a study of everything likely to influence health or to improve the sanitary condition of the district, and should act as a kind of sanitary police. The municipal police must help the Commission in the exercise of its duties, and give information about any insanitary state of things which has come under their observation.

The Commission may summon any citizen to appear before it, and refusal is punishable with a fine. The Commission may call in the assistance of the police authorities to compel the attendance of the required persons.

The orders, which contain explicit directions, and not merely advice and warnings, must be carried into effect by the chief of police. He may refuse to execute the order if he judges it to be contrary to any public regulation. If the Commission should persevere in its

opinion, the matter must be referred to the superior authority of the Royal Prefecture.

The Municipal Council can charge the Commission with the administration of hospitals, and the care of the indigent sick.

#### FINLAND.

In most of the essential points the sanitary administration of Finland is almost identical with that of Sweden, both countries having had a common history from 1157, when the Swedes arrived in Finland for the purpose of introducing Christianity, until 1809, when the country was united with Russia, in consequence of the Napoleonic revolution. The supreme direction of affairs relating to hygiene and medical science is in the jurisdiction of the head of the civil department of the Senate.

#### DENMARK.

From "Denmark: Its Medical Organisation, Hygiene, and Demography." Presented to the International Congress of Hygiene and Demography, held in London in 1891.

The supreme administration of all civil, medical, and sanitary matters (excepting veterinary) is in the hands of the Ministry of Justice, which is the highest authority in all such. Under the Ministry are (1) special medical and sanitary authorities: the Royal Board of Health, the Public Medical Officers, the Local Boards of Health, and the Quarantine Boards; and (2) ordinary civil authorities armed with executive power.

#### THE ROYAL BOARD OF HEALTH.

The supreme of the special medical authorities is the Royal Board of Health (*det kongelige Sundhedskollegium*), which superintends all the medical and sanitary matters of the country under the supreme administration of the Ministry of Justice. It consists of ten members, all medical men, and two assessors, both apothecaries in the Metropolis, who only take part in matters concerning pharmacy when such are brought before the Board. Both members and assessors are nominated by the Crown. Their work is unremunerated. The members of the Board choose amongst themselves for a period of six years a chairman, called the Dean (*decanus*), who, when his period of office has elapsed, may be re-elected once or more for another period, his election and re-election being sent in for the sanction of the Ministry of Justice. The dean manages the whole working of the Board, and presides at its meetings. His yearly salary is 2,400 kroner (18'16 = £1). If prevented from fulfilling his duties, his function is taken

by another member, the deputy dean, who holds office for a year at a time, the members alternately taking this post in the order they are nominated. To meet the annual expenses (offices, etc.) the Board receives about 10,000 kroner from the revenue.

The authority of the Royal Board of Health is both advisory and administrative. When required by the ministries, the authorities, or courts of justice, it has to give its advice and opinion, and also to arbitrate in all questions which come under its sphere of action. The Board may also take the first steps to alterations and improvements of medical and sanitary matters by introducing memorials and propositions concerning these before the Ministry of Justice. The Board also nominates to the Ministry the candidates for the vacant public medical offices and personal apothecary privileges. It surveys the enforcement of medical and sanitary laws, and regulates generally and superintends all medical practitioners, dental surgeons, apothecaries, and midwives of the country in the performance of their professional duties, and has authority to warn and reprimand them when they show negligence or other misbehaviour in their professional work, or trespass the medical or sanitary laws of the country. The Board superintends quarantine matters, proposes quarantine regulations, supervises public vaccination, the public hospitals, and other public institutions where many people are gathered together (for instance, prisons, houses of correction, workhouses, alms houses, schools, etc.) as far as the health of their inmates is concerned. The Board is the immediate superior of all public medical officers, giving them its advice in all doubtful matters, and forming the link between these and the Ministry of Justice. It communicates to them the regulations concerning their official duties, rectifies eventual errors committed by them, and controls through the Dean the official books and archives of Superintending Medical Officers. Finally, the Board collects continually, as comprehensively as possible, all information on diseases prevailing in the country. The information which the Board acquires in this way is used to communicate with the authorities concerned in order to remove all that might be injurious to health, and to regulate matters at variance with medical and sanitary laws or highly injurious to public health.

The Board issues an annual report of its work; this also contains a synopsis of diseases prevailing in the country, and the causes of death, the statistics of these latter forming a special object of attention by the Board.

#### PUBLIC MEDICAL OFFICERS.

Immediately under the Board are two classes of public medical officers, viz., the Superintending Medical Officers and the District Medical Officers. There are eleven Superintending Medical Officers

(*Physici*) in the country, each one being the Medical Superintendent of a province or a part of it (containing about 170,000 inhabitants), and forming the immediate link between the Royal Board of Health and the medical officials of his district (*Physicat*). Here he superintends all public sanitary matters, and everything concerning the public medical attendance of the sick; he has the control of all public hospitals (except the lunatic asylums), almshouses, poor houses, workhouses, prisons, and similar institutions, *apotheks* which he annually inspects; and the supervision of the public work of all medical and sanitary officials. He performs the post-mortem examination at coroner's inquests, together with the District Medical Officer concerned. The *physicus* is a member of the superior Board of Health, and has the supreme management in all measures against infectious diseases outside the Metropolis.

Finally, he collects and epitomises the returns rendered by all the medical men of his *physicat*, and himself reuders an annual report to the Royal Board of Health, drawn up on the basis of the former. The annual salary of a *physicus* is 1,600 kroner, increasing by 400 kroner after each five years' service to 2,800 kroner. He is entitled to a pension on discharge for old age and debility.

THE DISTRICT MEDICAL OFFICERS (*Distriktslæger*) are immediately under the superintending medical officers, and number about 100. They have the local supervision of all public sanitary matters, and everything concerning the public medical attendance of the sick of their districts. They are at the disposal of the authorities when their professional ability is required in any such matters. They have also varied duties according to locality, etc., such as being members of quarantine boards, and extraordinary sanitary boards, performing post-mortem examinations and other medico-legal examinations, medical attendance of prisons, attendance on sick conscripts, performance of vaccination, control of public midwives, and generally attendance on all sick poor. They report annually to the Superintending

#### EXECUTIVE AUTHORITIES.

These are the ordinary superior public civil officers (*Amtmænd*), who are the governors of counties, and subordinate public civil officers (in the towns the Burgomasters and the *Byfogeds*, who are the State officials, and in the rural districts the *Herredsfogeds* and the *Birkedommers*, who have a function similar to that of the *Byfogeds*). These public civil officers have especially to control the enforcement of the sanitary regulations amongst the population.



## APPENDIX F.

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### MANCHESTER AND SALFORD SANITARY ASSOCIATION AND PHYSICAL TRAINING.

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#### PETITION TO THE HOUSE OF COMMONS.

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Presented by Sir William H. Houldsworth, Bart., M.P., on  
June 9th, 1902.

To the Honourable the Commons of the United Kingdom of Great  
Britain and Ireland in Parliament assembled.

The Petition of the undersigned members of a Conference held at Manchester, on April 24th and 25th, 1902, to commemorate the 50th anniversary of the formation of the Manchester and Salford Sanitary Association, humbly sheweth that your Memorialists represent a large concourse of Delegates from Municipalities, Urban District Councils, Boards of Guardians, School Boards, and representatives of numerous Societies officially attending the celebration.

Your Petitioners humbly submit for the consideration of your Honourable House the following facts:—

- (a) As shown by Census Returns the population of this country is rapidly changing from rural to urban.
- (b) There is constantly recurring evidence that the conditions of town life, especially in industrial centres, tend towards physical deterioration, the latest instance being the rejection on a large scale as unfit of candidates for military service from such districts.

Your Petitioners view with alarm the consequences indicated by these facts, and, in the belief that the future prosperity of the nation and the improved social condition and general happiness of the people largely depend upon their attaining the highest possible standard of health, mental and moral, as well as physical, humbly pray that physical training may be promoted by the Government on a scale co-extensive with the school system of the country.

Your Petitioners therefore humbly pray that your Honourable House will secure the appointment of a Royal Commission to inquire

into existing provision for physical training in this country, and report upon the development necessary to produce an effective system.

And your Petitioners will ever pray, etc.

J. Manchester, Bishop's Court, President of the Manchester and Salford Sanitary Association.

James Hoy, Lord Mayor of Manchester.

Samuel Rudman, Mayor of Salford.

W. H. Broadbent, M.D., F.R.S., Chairman of Council of National Association for the Prevention of Consumption.

W. J. Crossley, Chairman Manchester and Salford Hospital for Consumption and Diseases of the Throat.

D. Lloyd Roberts, M.D., Physician to St. Mary's Hospital, Manchester.

A. Emrys-Jones, M.D., J.P., Member of the Court University of Wales.

T. C. Abbott, Merchant—Concillor City of Manchester  
Priestly Prime, Heaton Moor.

Harold Sheldon, Surveyor, Alderley Edge U.D.C.

R. H. Huntington, Vice-Chairman, Goole U.D.C.

R. Inglis Hall, Mayor of Lancaster.

W. S. Caiger, Rector, St. Mark's, Hulme.

Walter Latham, Laurel Grange, Earlestown.

R. A. Leach, Union Clerk, Rochdale.

William Crabtree, Member of Board of Guardians, Rochdale.

John Angell, 6, Beaconsfield, Withington.

Ashton Whitehead, Member U.D.C., Failsworth.

T. H. Drinkwater, Levenshulme U.D.C., Levenshulme.

Emma O'Neill, 52, Park Street, Greenheys, Manchester.

W. S. Wade, M.O.H., Wakefield.

Isabell Hamill, Higher Broughton, Member Ladies' Public Health Society.

Jane Redford, Willholme, Chorlton-cum-Hardy, Ladies' Public Health Society.

Marion C. Ashburner, 3, Sedgley View, Prestwich, Ladies' Public Health Society.

W. G. Edwards Rees, M.A., The Vicarage, Pendleton, Salford School Board.

W. D. Harland, 48, King Street, Manchester, Barrister-at-Law.

E. O. Lindley, 21, Ivy Bank, Middleton Road, Crumpsall.

Ellen Jackson, Tiverton Lodge, Tetlow Lane, Higher Broughton.

F. M. Marsh, Cumberland House, Macclesfield.

N. J. Duncan, Seymour Street, Denton. Denton U.D.C.

Edgar Wilde, Wilton Street, Denton. Denton U.D.C.

John T. Hulse, Oakdene, Denton. Denton U.D.C.

- Alice Crompton, M.A., Manchester University Settlement and Art Museum, Anecoats.  
 Julius Bishop, 36, Bowker Street, Higher Broughton.  
 Thos. Londin, Borough Engineer, Warrington.  
 T. R. Marr, M.A., University Settlement, Anecoats Hall, Manchester.  
 Wm. Huddart, Chairman Health Committee Salford Corporation.  
 Ogilvie Duthie, Salford School Board (Clerk).  
 Jno. W. Riley, Royton School Board.  
 Emily Gill, Ladies' Public Health Society, Manchester.  
 Maria Williams, Health Visitor.  
 Annie Lancaster, Health Visitor to the L. H. Soc.  
 Annie Ahillito.  
 Geo. H. Abrahams, Stretford.  
 H. Robinson, Stretford.  
 J. Williams, Stretford.  
 Ward Andrews, Hipperholme.  
 T. Taylor Evans, Holy Trinity Vicarage, Bolton.  
 Canon Cundey, Chairman of Education Committee Bolton School Board.  
 Alfred Knight, Bolton School Board.  
 Joseph Hoyle, Chairman of Health Committee, Heywood.  
 Tom Robinson, Heywood.  
 David Basil Hewitt, M.D., J.P., Northwich. Chairman Public Health Committee, County of Chester.  
 Henry Simpson, M.D., Conway. Ex-Chairman of the Manchester and Salford Sanitary Association.  
 Chas. Potts, Sanitary Inspector, Northwich.  
 Tom C. Dawson, Hipperholme District Council.  
 Stephen Nugent Perry, Manchester and Salford Sanitary Association.  
 Rector of St. Mark's, Holland Street, Manchester.  
 A. Bostock Hill, M.D., University of Birmingham.  
 H. E. Cross, 17, Duke Street, Macclesfield.  
 J. Dixon Mann, Manchester. Chairman of the Manchester and Salford Sanitary Association.  
 C. W. Woodhouse, Canon, 65, Ardwick Green, Manchester (and Salford).  
 A. M. Erskine, M.O.H., Goole.  
 T. C. Horsfall, President of the Manchester Art Museum and University Settlement.  
 J. W. Johnson, Clerk to the Goole Urban District Council.  
 John Livesley, 36, Upper Chorlton Road, Whalley Range. Member Moss Side School Board.  
 S. A. Gamble, Arnwood, Fallowfield, Manchester.  
 —, Queen Street, Huddersfield.

Robt. Berry, Moorside, Swinton, Manchester.  
 Samson, G. Moore, M.B., M.O.H., Huddersfield.  
 Henry R. Hutton, M.A., M.B., 16, St. John Street, Manchester.  
 Alfred Brown, M.A., M.D., Higher Broughton, Manchester.  
 James P. Rountree, M.A., Werneth Vicarage, Oldham.  
 George Wm. Ewing, 63, Aekroyd Street, Openshaw, Manchester.  
 Dendy Agate, Dunham Road Chapel, Altrincham.  
 Joseph Yates, Barton-upon-Irwell Board of Guardians.  
 James A. Harris, M.D., J.P., M.O.H., Chorley Urban and Rural  
 District Council.  
 Ethel M. Pemrack, Member of British College of Physical Education,  
 Superintendent of Swedish Drill under Cardiff School Board.  
 Chas. Ernest Walker, Member Bolton School Board.  
 W. Charles Ford, Rector of Emmanuel, Barlow Moor (late Canon  
 of Melbourne).  
 Thomas Adams, Secretary Garden City Association, London.  
 William Graham, M.O.H., Middleton.  
 A. W. Martin, M.O.H., Gorton.  
 R. T. Williamson, St. Peter's Square, Manchester.  
 T. G. Haworth, M.B., D.P.H., M.O.H., Darwen.  
 William W. D. Firth, M.A., Vicar of Patricroft, Manchester.  
 J. W. Nicholson, M.A., Rector of St. Hilda's, Old Trafford,  
 Manchester.  
 S. Chapman, Owen's College, Manchester.  
 Councillor Bradburn, Pemberton, near Wigan.  
 John H. Thompson, Surgeon, M.O.H., Mytholmroyd, Yorks.  
 Eleanor L. Cookson, 596, Stretford Road, Manchester.  
 H. C. Broome, Clerk, Failsworth Urban District Council.  
 William Holdgate, Chairman Glossop Board of Guardians.  
 W. Jordan, Salford Board of Guardians.  
 J. E. Hibbert, Vice-Chairman Salford Board of Guardians.  
 Fred Scott, Secretary, Manchester and Salford Sanitary Association.

House of Commons Library,

June 9th, 1902.

DEAR MR. PERRY,

I write a line to say that I presented your Petition about Physical Training to-day, and asked a question.

The Government think we ought to wait till the report of the Scotch Commission is published, which, I understand, will be probably in the Autumn.

But from what I can hear I think you will find that the evidence which is being collected by that Commission will to a great extent cover the English case as well as the Scotch.



Moreover, if anyone in England takes an interest in the question and is able to give valuable evidence, I do not suppose he will be debarred from giving it simply because he is an Englishman.

I would advise your friends, therefore, to enter into communication with the Scotch Commission through the Scotch office, Dover Street, Whitehall, without waiting for an English Commission to be appointed.

Yours faithfully,

(Signed) W. H. HOULDSWORTH.

Rev. S. N. Perry, M.A.

## APPENDIX.

### MANCHESTER AND SALFORD SANITARY ASSOCIATION.

#### A MINISTRY OF HEALTH.

To the Right Hon. H. Asquith, Q.C., M.P., etc., etc., etc., Her Majesty's Principal Secretary of State for the Home Department.  
*The Memorial of the Manchester and Salford Sanitary Association.*

RESPECTFULLY SHEWETH,—That your Memorialists are a body of professional men and others, associated for the past forty years in the promotion of local sanitary reform, and of measures for the advancement of the public health generally.

That this Association has affiliated to it a group of kindred societies, viz.: The Ladies Public Health Society; the Noxious Vapours Abatement Association; the Committee for Securing Open Spaces for Recreation; the School Children's Cheap Meals Committee; and the Children's Country Holiday Fund, and at different times other societies have been in union with the Association.

That during their long and various experience your Memorialists have become familiar with the diverse methods of administration in matters relating to the public health.

That in the opinion of your Memorialists the health of the people is of paramount importance, and its interests demand the concentrated attention of a minister of the Crown, especially when the decentralisation of administration shall be further extended.

Your Memorialists respectfully submit that the time has arrived for the enforcing stricter administration of the law in many matters

affecting the public health, such as isolation of infectious diseases, the smoke nuisance, the housing of the poor, disposal of the dead, etc. The Central Department at present charged with the main portion of the work of controlling sanitary administration takes no initiative in the effective administration of the law except in such rare instances as the threatened invasion of the country by epidemic disease. In case of an epidemic occurring the Department will spontaneously inquire into its origin, otherwise its supervision of sanitary administration must be invoked by aggrieved persons. The system of control of chemical and allied works (if it may be regarded as a branch of the Sanitary Service) is exceptional, and affords an illustration of the advantages of control not subject to local influence in matters affecting health and property.

Your Memorialists venture to urge that active supervision of the Sanitary Service of the country can only be effected satisfactorily by a special Health Department controlled by a Minister.

The Home Department being concerned with some branches of administration of a sanitary character, *e.g.*, control of burial grounds, your Memorialists deem it appropriate to approach you with the request that you will examine carefully the merits of the proposal now made with a view to taking the direction of the proceedings necessary to effect the desired reform, an achievement which, in the opinion of your Memorialists, would confer immeasurable blessings upon the country.

And your Memorialists will ever pray, etc.,

A. RANSOME, M.A., M.D., F.R.S., Chairman.

A. EMRYS-JONES, M.D., } Hon. Secs.  
T. C. ABBOTT, }

FRED. SCOTT, Secretary.

44, John Dalton Street, Manchester,

December 31st, 1892.

# The Manchester Statistical Society.

ESTABLISHED 1833

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EXTRACTS FROM THE RULES  
OF THE  
MANCHESTER STATISTICAL SOCIETY.

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ESTABLISHED 1833.

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PREAMBLE.—The objects of the Manchester Statistical Society are—The collection of facts illustrative of the condition of Society, and the discussion of subjects of Social and Political Economy, totally excluding party politics.

INTERPRETATION CLAUSE.—In these Rules the masculine shall include the feminine gender.

RULE 1.—Every ordinary member shall pay an annual subscription of half-a-guinea, or may at any time compound for his future subscriptions by paying at once the sum of five guineas. Every new member shall, on election, pay an admission fee of half-a-guinea; but members elected at the last ordinary meeting of any session shall not be charged with the annual subscription for that session.

2.—The annual subscription shall be due in advance on the 1st of October in each year.

3.—Gentlemen distinguished for their ability and zeal in cultivating Statistical inquiries, and living at least twenty miles distant from Manchester, may be admitted as corresponding members. No subscription shall be required from them.

4.—The ordinary meetings shall be held during the Society's session, viz., from the 1st of October to the 1st of July, with intervals not exceeding six weeks between each meeting.

18.—Members are expected to communicate to the Society papers on Statistics, and on subjects of Social and Political Economy, particularly on such as may be of local interest; and the writer of any such paper shall be required to submit it to the Council *a fortnight* before the meeting at which it is to be read. All papers read before the Society shall be deemed to be its property.

NOTE.—The Society's Library is by arrangement with the Corporation of Manchester deposited at the Free Reference Library, King Street, and is open daily. Members desiring to borrow books can do so on obtaining an order from the Honorary Secretary, Theodore Gregory, 32, York Street.